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EMPIRICAL PSYCHOLOGY;

OR,

THE SCIENCE OF MIND FROM EXPERIENCE.

BY

LAURENS P. HICKOK, D.D., LL.D.

REVISED

WITH THE CO-OPERATION OF

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PREFACE TO THE FIRST EDITION.

IT is the design; in the present work, to represent the human mind as it stands in the clear light of consciousness. We go to our own inward experience to find the facts, both of the single mental phenomena and of their connection with each other. An *Empirical Psychology* is here alone attempted, and in this we cannot proceed according to the order of a *pure* science. The necessary and universal Ideas, which must determine all mental activity in every capacity, in order that these capacities may become intelligible to us in their conditional laws of operation, are not now first assumed, and then carried forward to a completed system by a rigid *à priori* analysis and speculation in pure thought. Such a work has already been accomplished in a Psychology thoroughly rational. The subjective Idea which must condition and expound all Intelligence has been attained, and then the objective Law which controls all the facts of an acting Intelligence has been determined to be in exact accordance. But in this work we wait upon experience altogether. We use no fact, and no combination of facts, except as they have already been attained in the consciousness of humanity. It is rather a description of the human mind than a philosophy of it; a psycography rather than a psychology; and should not assume for itself the prerogatives of an exact science.

Still, with this renunciation of all claim to a pure science, the attempt has been made to find the human mind as it is, and all its leading facts as they combine to make a complete whole. The aim has been to present all the constituent parts in the light of their reciprocal adaptations to each other, and to show how all depend upon each one, and that each one exists for all, and thus to give the mind through all its faculties as a living unity, complete and consistent in its own organized identity. When a system is thus matured from conscious experience, having all the symmetry and unity of the acting reality, it may be known in a qualified sense, as a philosophy, and be termed a science of mind. It is a science, as Chemistry, Geology, and Botany are sciences, the study of facts in their combinations as nature gives them to us, and thus teaching what is first learned by careful observation and experiment. It assumes not to have found those conditioning principles which determine that the facts *must* have been so ; but it may and does from its own consciousness affirm that the facts *are* so.

Such a method of studying the human mind should precede that which is more purely philosophical, and thus more truly metaphysical, and is, perhaps, the only method to be attempted in an Academic or a Collegiate course. It is universally essential, as a portion of that applied discipline which is to prepare for vigorous and independent action in all public stations, and cannot be dispensed with in any learned profession without detracting from both the utility and the dignity of the man. It equally applies to the full process of Female Education, and both adorns and refines while it also expands

and strengthens. This empirical exercise, thus indispensable for every scholar, is also a preparative and incentive to the study of the higher Metaphysics in more advanced stages of philosophical enquiry.

The present work has been written with the eye constantly on the class for whose study it is designed, and indeed mainly while the daily instruction with the author's class was in progress, and the care has been to make it intelligible to any student of considerable maturity, who will resolutely and faithfully bring its statements to the test of his own clear consciousness. No instruction in Empirical Psychology can be given by mere verbal statement and definition, nor by attempted analogy and illustration. If the Teacher does not send the pupil to the fact as he has it in his own experience, there will be either an inadequate or an erroneous conception attained. The phenomenon within is unlike any phenomenon without, and all ingenious speculation and logical deduction will be empty and worthless without close and direct introspection. With such habits of investigation, it is fully believed that the following delineation of mental faculties and their operations will be readily apprehended, and consciously recognized as mainly conformed to the person's own inward experience.

PREFACE TO THE REVISED EDITION.

IN the present edition, the original work has been wholly revised and almost wholly rewritten. Longer period of instruction and broader investigation has made the way and the work more familiar than at first, so that, with the like end in view, we come back to our former starting-point, and find the entire vista more clearly open, and a favorable occasion thereby given for variation, enlargement, and correction, as may respectively be found requisite in this revision. It has been a special design to make this edition a ready and helpful introduction to a spiritual philosophy by which universal human experience shall become a complete systematic science.

The old copy took common consciousness as ultimate criterion for science, and assumed it to be alike in like conditions always for the same man, and also conditionally alike always for all men. But if we will more acutely and accurately try like facts by assisted scientific experiment, we may get practical proof for the uniformity of consciousness in all uniform cases. Such scientific experiment is made the test in this copy, and this is carried upwards through all the revealings of consciousness in higher faculties ; yet, since common experience is given in common consciousness, and the scientific proofs are not sought till we take up General Empirical

Science, there has been occasion for only slight alterations in the Introduction, or in the Anthropology which leads to the attainment of common experience.

A text-book needs to be both comprehensive and compact, and at the same time clear; and this book has been prepared with a full sense of these requirements. It is hoped that a complete outline of the science will be here found concisely presented, and in precise and plain terms. The realm of thought, however, cannot be explored without thought; and a text-book of mental science which should furnish no difficulties to any student would probably be as superficial and partial as it might be simple and plain.

The controlling interest in the present work has been all along to secure for the student, in this First Book of Psychology, such a start on his philosophical course as will effectually keep him from finding his pursuit of truth on the one side fruitless, because he has taken the path which leads to the insuperable deadlock of balanced mechanical forces, and on the other side endless and bootless, because his way opens into the desert of empty abstractions or toward the mirage of fleeting and only imaginary idealities. The hope is cherished that he will find here an open path soliciting his pleasant perseverance and assuredly leading to the completion of science in the systematic comprehension of universal human experience.

AMHERST, MASS., December, 1881.

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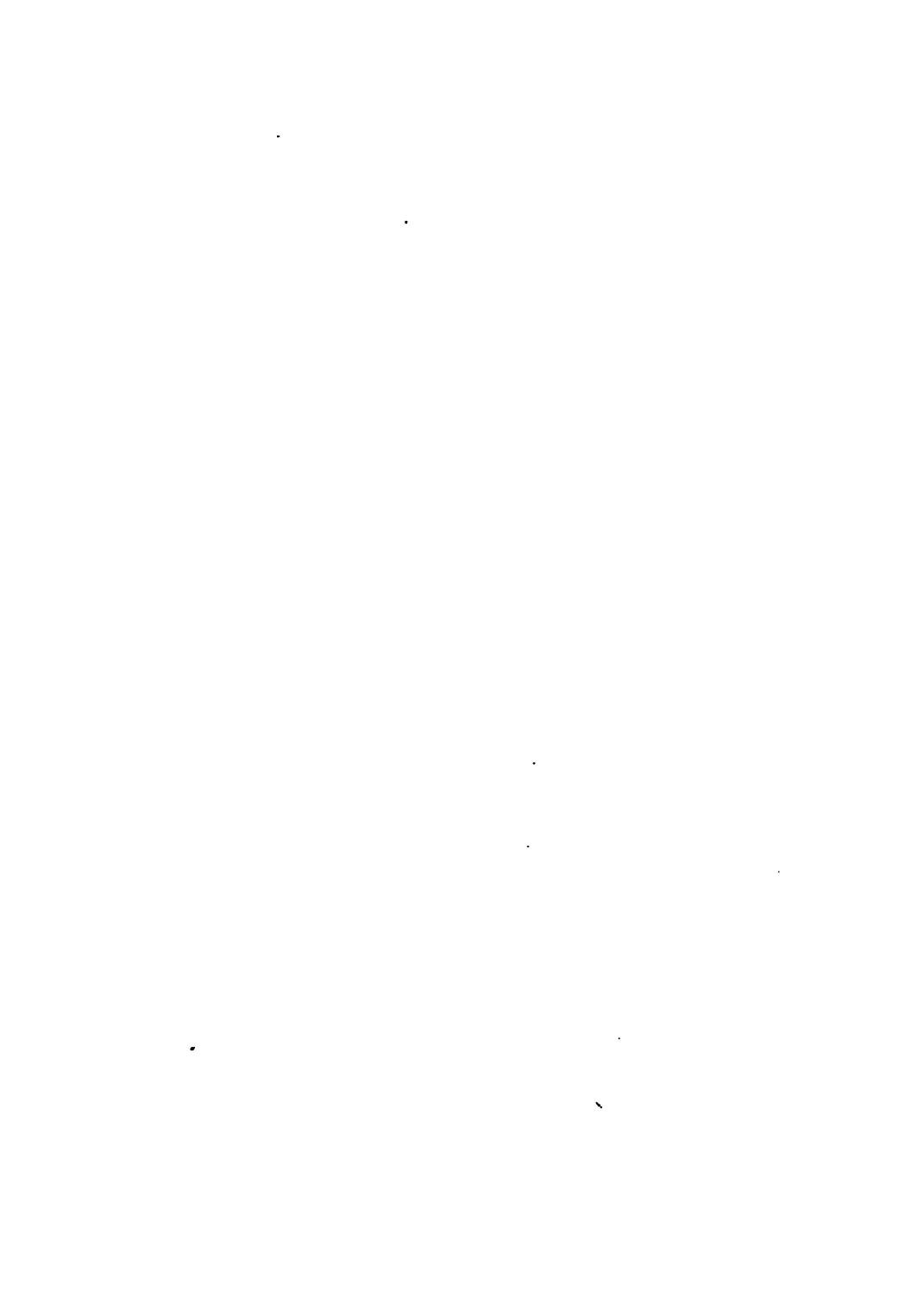
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INTRODUCTION.

PSYCHOLOGY comprehends the necessary principles and the developed facts of mind. *Rational* Psychology finds its field in the necessary principles of mind, while the developed facts form the exclusive object of *Empirical* Psychology. This, which alone we now investigate, is the science of mind as revealed in the actual facts of a conscious experience.

It thus includes all mental facts which may come within the human experience, and demands, as an empirical science, that all these facts be collected and orderly arranged.

Such a science has not yet reached its consummation. All the facts of mind are not probably yet found, while many that have been attained are neither clearly discriminated nor properly systematized. The labor still to be expended on this field, before it can be said to be fully in possession, is very great, and is greatly increased by certain liabilities to error always found in the study of mental phenomena. We shall best facilitate our entrance upon our investigations by noting some of these, and the way to overcome them.

1. *The inverted method of the mind's operation in attaining its facts.*

The objects of Empirical Psychology are the facts of mind which come within every man's own experience. We may not assume what the facts are from any presumption of what they should be, nor take them upon trust because others have said what and how they are ; we must find them within ourselves,

and clearly apprehend them in our own experience, or they are incapable of use in our psychology. The facts, indeed, must be those which are found in others as well as in ourselves, but while others may have observed and used the same, they have no validity to us except through our own conscious experience of them. Our first need, therefore, in the study of Psychology, is a familiarity with the facts of our own consciousness.

But this is not easily gained. From its first conscious apprehension the mind has been busy with the phenomena of nature and the objects of an external world. It has become so engrossed with these that, while the attainment of new facts through sensible observation is easy and pleasant, it is both difficult and disagreeable for the mind to break up its old habit of looking outward while it turns its attention towards its own action, and makes its own phenomena its study. The effort steadily to look in this unaccustomed direction induces a weariness that destroys the capacity for clear perception and patient investigation. Repeated attempts and decided and perpetuated effort, which shall ultimately habituate the mind to give this intro-version to its attention, can alone secure any deep interest and delight in this order of mental operation. A fixed and prolonged examination of the phenomena of the inner mental world is, on this account, the agreeable and chosen employment of comparatively few minds, — probably less than one in a thousand in our more enlightened communities.

The perpetual tendency from this is to induce impatience and haste in the induction of mental facts, and to leave the whole philosophy of mind to a superficial examination. The assertions of one, hastily made, are taken upon trust by others ; specious appearances are carelessly assumed to be veritable realities ; complex operations are left unanalyzed, and erroneous conclusions drawn from partial inductions ; and then the whole is put together through the connections of mere casual or fancied resemblances ; often even mingling contradictions and absurdities.

ties in the system. Many doctrines both false and pernicious are propounded, and gain currency, respecting the mind, solely because the mind is unaccustomed to accurately note the daily experiences in its own consciousness.

This difficulty is to be overcome, and the liability to error thereby avoided, only by a resolute perseverance in overcoming the old habit, and learning the method of readily reading the lessons from our own inward experience. And there is no way to do this but by doing it. The organs of sense must be shut up, and the material world shut out, and the mind for the time shut in upon itself, and made to become familiar with its own action. The man must learn to commune with himself; to study himself; to know himself; to live amid the phenomena of his own spiritual being; and when this habit of intro-spection has been gained, the investigation of mental facts becomes not only possible, but facile and delightful.

2. *The ambiguity of language.*

Language is the outer body of thought. Words, without thought, are empty; and thought, without words, is helpless. The common speech is thus the outer expression of the common thoughts of mankind. Philosophy attains the necessary principles, and determines the rules for the grammatical construction of language; but philosophy does not make nor change language. The working of the human mind within determines for itself its own outer expression, and, as an inner spirit and life, builds up its own body, and gives to it a form according to the inherent law of its own activity.

The great mass of mankind are conversant mainly with the objects of the sensible world. They think, and thus speak, of little else than those phenomena which meet them face to face through the organs of sense. The words they employ to denote these phenomena have little ambiguity, because their meaning can be so easily verified by a sensible repetition of that which they denote. When men begin to reflect and

philosophize concerning nature, their technical phraseology is readily referred, for its interpretation, to the outer objects of which it is the symbol, and thus there need be here little mistake or confusion in apprehending the thought. In mathematics, also, where the objects are numbers and diagrams, which can be constructed alike by all, language has a definite meaning which precludes any possible ambiguity or obscurity.

But, in mental science, the case is quite different. The thought must have its word, and the science its philosophical phraseology; but the thoughts, as elements of mental science, are quite peculiar. They relate to thought itself, and the inner faculties and functions of a spiritual existence. The words which express them cannot be explained by any reference to sensible objects, and yet the words wherewith we denote sensible phenomena are all we have wherewith to denote these inner phenomena of our mental being and action. To invent new terms for these new thoughts would be impossible, since such terms would neither have any significance to another mind, nor any reality to our own. We are obliged to accommodate to these inner spiritual phenomena the language already appropriated to sensible objects; and while the mind may do this quite spontaneously, as though discerning some original correspondence in these two kinds of facts, yet the process is always liable to more or less uncertainty and ambiguity. While it may not be accidental that the mind, though wholly spiritual, unextended, and illimitable by any of the forms of space, is said to be *fixed* or to *wander*, to be *dull* or *acute*, *narrow* or *comprehensive*, or that the names for tangible qualities in nature are also transferred to the intangible characteristics of the spirit, yet these primary and secondary significations of words, whereby in the science of mind we are perpetually thrown back upon the analogies of matter, induce mistakes and confusion, and often a wide misapprehension of the thought, in the illusion from the two-faced symbol that conveys it. Sturdy controversies have

been often mere logomachies, and it may be doubted whether men would ever dispute upon any point in psychology if they perfectly understood one another.

The errors from this source are to be avoided, not by excluding all such ambiguities, which will be wholly impracticable, but by universally bringing the fact, through actual experiment, within the light of consciousness. By whatever symbol the mental fact may be communicated, the conception must be known as that of some phenomenon within us, and not some quality from the world without us. The analogy must not be permitted to delude, but the fact itself must be found amid the conscious elements of our own mental experience. The truths we want in psychology are not to be sought in the heavens above, nor in the depth beneath; but they are nigh us, even in our own being, and amid the hourly revealings of our own consciousness.

3. Inadequate conceptions of mental being and development.

The complete conception of a plant includes far more than its sensible phenomena of color, shape, size, and motion; or that of all its separate parts of stock, branches, and leaves. It must especially include its vital force as an inner agency which develops itself in a progressive and orderly growth to maturity. This is widely different from all conceptions of mechanical combinations, in which the structure is put together from the outside, according to some preconceived plan of arrangement. There is, both in the plant and the machine, the conception of some law of combination, and in this a rational idea which expounds for each its own structure; but in the plant it is that of an inner living law, spontaneously working out its organic development, while in the mechanism it is an artificial process for putting dead matter together. The former conception is far more difficult adequately to attain than the latter.

The conception of animal life and development is still more

difficult since it rises quite above that of the vegetable, and includes the superadded forces of a sentient nature with its appetite craving, its instinctive selection of food, and its faculty of locomotion. But incalculably more complex and difficult is the conception of the human life. In this are found not only the forces of the plant and the animal, but the distinctive and far more elevated endowment of rational faculty, whereby the human life is lifted into the sphere of personality and endowed with the prerogative of action in liberty and moral responsibility. All this complexity of superinduced faculties from mere vital force up to rational being, has in man its complete organic unity, constituting but one existence in its own identity, and its own inner spirit works out a complete development of the whole, through all the manifestations of growth and mature activity. One life pervades the whole, and one law of being makes every part reciprocally subservient and accordant with all other parts.

Inadequate conceptions of humanity, which leave out any of its included capacities and exalted prerogatives, must necessarily originate very faulty systems of psychology. All resting in the analogies of mere mechanical combinations and movements must be widely erroneous; and any failure clearly to discriminate between the animal and the rational must necessarily fail in the attainment of a spiritual philosophy; and any complete conceptions of man's spirituality, which do not at the same time recognize the modification therein given from its combination with the material and the animal, will also necessarily render the person incompetent to study and attain the science of mind as it dwells in a tabernacle of flesh and blood. An exclusion, in fact, of any one of the superinduced powers and faculties in humanity, and their reciprocal dependencies and modifications, must so far vitiate the system of philosophy which is thus attempted to be constructed. Liabilities to error here are greater than from all other sources.

The only way to obviate these difficulties, and escape these liabilities to error, is by cultivating the intellect till we can see without mistake the essentially spiritual being of the subject to be investigated. The use of any mechanical analogies or animal resemblances must not be allowed to delude the mind with the notion that the rational and spiritual part of humanity can be at all adequately apprehended through any such media.

The mind must be studied in the light of its own conscious operations, and the perpetual interactions of the sense and the spirit, "the law in the members" and "the law of the mind" must be accurately observed; and while the philosophy thus knows how to distinguish things that differ, it must also know how to estimate the modifications which these different things make reciprocally upon each other. All material and animal being has a law imposed upon it, while all spiritual being has its law written within it; the first moves wholly within the chain of necessity, the last has its action in liberty and under inalienable responsibility; and all philosophy is falsely so called, which does not adequately discriminate between them.

4. The broad comprehension necessary to an accurate classification of mental facts.

The mind is a unit in its existence, through all its varied states of activity and all its successive stages of development. It is moreover a living unity, growing to maturity and maintaining the integrity of its organization, by the perpetuated energy of one and the same vital principle. When, then, we have attained all the single facts of mind which can be given in any experience, and know how to analyze every fact to its simple elements, we have not yet completed our mental philosophy. The philosophy truly consists in the combination of all these discriminated facts into one complete system. But there are very many ways in which a classification of the facts found may be made, and thus systems from the same facts may be as various as their varied combinations may admit. Merely casual

relationships may be taken, or even fancied or arbitrary connections assumed, and made the principle by which the facts are brought into system ; or a blind imitation of another man's system may be followed, with no independent examination and determination of what the true order of classification may be.

The liabilities to such faulty classifications find their source in the difficulty of attaining comprehensively what is the living order of arrangement, as found in the mind itself. Single facts can much easier be found, than the right place for them in combination with all others. To put each fact in its own place demands a knowledge of its relationship to all others, and thus no classification of it can be known as correct, except through a knowledge of all others with which it must stand in connection. The entire facts in the system must thus be known, each in its own control over others or dependency upon others, before they can be put together in any valid order of systematic arrangement. Such a comprehensive view is not readily attained. Few minds are willing to take the labor necessary to reach such a standpoint, where they may overlook the whole field and accurately note every division and subdivision within it. The several faculties and functions of mind are facts, as really as the phenomena which come out in their particular exercises ; and the whole mind, with all these faculties, is itself a fact, to be accurately known in its completeness as really as any one faculty, or any one act of any faculty. Only by such comprehensive knowledge can the liability to faulty systems in mental science be excluded.

Thus forewarned of the difficulties in the prosecution of the study of mind, and the liabilities to error thereby induced, the student is better prepared to enter upon the necessary investigations, and to guard against any delusive influences that may assail him. His task is to attain the facts of mind and classify them, exactly as they are found to be in the clear light of conscious experience.

ANTHROPOLOGY.

IN our study we may not anticipate speculative principles which can only appear as the result of our study. We start with facts which lie upon the surface, which every eye sees, and which all admit.

At first view, man seems to every observer quite different from all the objects around him. The common mind which has recognized the distinction between mute matter and living bodies, and between vegetable and animal life, sees also the capital distinction between the higher orders of animals and man. The difference between the animal and the man is to the common mind clear and broad, notwithstanding the likeness of the two. The common mind finds, in both, sensation and locomotion and many similarities in structure and function ; but man's erect posture, expressive countenance, organs of speech, and skilful hand, his control of circumstances, and capability to fit himself for his habitation in all climates, and, more than all, the manifestation of a personality which claims rights and admits obligations, give him a superiority and dominion over all other animals, and make the everywhere-acknowledged distinction between the human being and the brute. Whether this distinction shall grow larger or less as farther study of man and brute, in comparative psychology, progresses, matters not here. We are simply looking now at what appears to the common mind, and only need to notice at this point, that in common admission man stands out separate and alone amid all earthly things. The common

mind can thus take humanity entire and distinct from all else this world contains, and make its intrinsic distinctions the object of its farther study. Such a study would come under the technical term of *Anthropology*.

And yet, as the common mind pursues it, notwithstanding its assumed name, this is not a science, since it applies no accurate and repeated experiments in its investigations. It is only the note which mankind in common takes of the dawning distinctions earliest recurring among themselves, and which, however vaguely, are looked upon as integrant portions held together in the common humanity. The study of the parts may be in any generation, or in their historic transmissions through many generations, but the same humanity will be recognized in all and its acknowledged characteristic traits will still hold all its distinctive members in one family.

But although Anthropology, in the sense thus given it, is a study, and not a science, it is preliminary to science, and that out of which all science and philosophy must originate, for it attains for us a common experience from which only can any scientific or philosophic passages outward be ever successfully attempted. The common experience is the common source from whence all intelligence, speculative or conclusive, inductive or deductive, can be derived.

We give only sufficient outlines of anthropologic study for the legitimate attainment of this common experience.

We may fairly take for our starting point, since this is certainly held by the common mind, that the human race is one, and that there is a common experience of humanity. We need not now make any inquiries into the origin of this. All questions concerning "the origin of species" and "the descent of man" will here be wholly irrelevant and impertinent, for they can neither be asked nor answered till we come to quite an advanced stage of scientific and speculative investigation. Whether man may have been evolved from some animal, or has

had separate creations at different times and in divers places, or has had one common ancestry as the product of one creator, the common mind will derive its conviction of a common experience from the fact that the distinctive traits of humanity above noted characterize the acknowledged human being of every age and clime. Wherever these distinctive marks be observed in any generation, or are historically transmitted through many generations, or sculptured on old monuments, or painted on the walls of uncovered ancient tombs, the common mind at once sympathizes with such beings and their works as belonging with it to the same family, and thus held together with it in a kindred community. The inquiry, Whence came man? is for the scientific and speculative mind; the common mind acknowledges its community with the characteristics of humanity wherever found, much earlier than its scientific curiosity is thereby stimulated to the search for its origin. It assumes the community at once, and in this the acknowledged relationship of every human individual with every other.

But while with these generally distinctive traits of humanity, lifting it above mere animality, we have also the peculiarities of a human organism, bodily and mental, which may perpetuate their general uniformity from age to age, there are certain intrinsic differences in the human family, which, however induced, are the proper objects of anthropological study, and which, while they will reveal somewhat large internal distinctions of experience, will also manifest that these distinctions are quite compatible with a common experience, in which individual members of a generic community, however different, alike participate.

i. *Difference of sex.* This is the broadest difference in human life, and manifests its influence through all the anatomical structure and physiological functions of the human organism. The bones, muscles, skin, hair, and the venous and nervous systems are all modified by the constitutional peculiarities of the particular sex. A man's bones and muscles are larger, stronger,

and more angular than a woman's. The nervous system of a man shows the larger cerebral and that of the woman the larger ganglionic development. The relative size of the brain in the two sexes is nearly expressed by the ratio of fifty-four to forty-five. The man has the larger lungs and the woman the larger liver. The man's blood is richer in solid contents and circulates more slowly than that of the woman, a woman's pulse having from ten to fourteen beats a minute more than a man's. These differences do not always appear in individual cases, but are sufficiently manifest to warrant their affirmation as a general law.

But these bodily differences are no more strongly marked than are the mental. There is a radical and abiding difference between a male and female intellect. The woman is more intuitive than the man, while the man is more logical than the woman. The opinion of a good woman, even though it be one for which she is able to give no good reason, will be trusted by a wise man. A woman is more apt to excel in mathematics than in logic, and in law than in theology. The keen-sighted Greeks made the fountain of law,—Themis,—and also the ministers of law,—Dike, Nemesis, Adrastea, the Erinnyses,—females. It accords with this thought, and can hardly be called accidental, that female sovereigns are prominent among the most conspicuous rulers of states. A man's sovereignty, however, is more likely to be exercised according to the demands of his understanding, and a woman's according to the requirements of her heart.

In respect of feeling, a woman is more sensitive, she feels more keenly and more intensely than a man. She is the more warm-hearted while he is the more open-hearted; the woman can keep her secrets better than a man, though she may be freer with those of another. Constitutionally apportioned to bear in her body the race, she is thereby more apprehensive of danger, is less courageous, but at the same time is more chaste, more patient, more tender, and more loving than the man.

Though more intense in her animosities and less easily placated than a man, a woman is not a warrior even among savage nations, except where, as among the Dahomans, females who fight in armies do not marry, but are said to have changed their sex. Both sexes are susceptible of jealousy, but the man is only jealous where he is loved, and the woman only where she is not loved. The sentiment of duty is stronger in him and the sentiment of honor in her. The man yields to a control to which his understanding assents, while the woman claims a control which her feelings assert. Both sexes desire marriage ; but the woman finds her independence in the married state, and the man loses his.

While, with these differences between the two sexes it is quite absurd to speak of any general superiority of the one over the other, since the idea of humanity contains the two, and each is the necessary complement of the other, we must take cognizance of the fact that there is a radical and abiding difference between the two sexes,—a difference which advancing culture, instead of removing, only renders more apparent. A savage man and woman are much more alike than are the two sexes when civilized. In the photographs of wild North American Indians it is difficult to distinguish a woman's face from a man's. Even the voices of the sexes are very similar among savages, differing in most cases only as tenor and alto,—the man's voice deepening to a bass and the woman's rising to a soprano, only, as a rule, in civilized life. Thus the sexual differences which barbarism obliterates civilization restores and renders increasingly prominent ; and if in any case this fails to be true, we meet the case with aversion. A masculine woman and an effeminate man are both encountered with disgust.

But though this difference is broad and clear, and is easily recognised by the common mind, it is not prejudicial to the essential unity of the two sexes. The sexes are both human, and it is one common experience, in which both combine, notwithstanding the modifications given it by each.

2. *Differences of race.* These differences are very apparent, but there has been little uniformity in their classification. If there be considered three races, whose type and characteristics differ exclusively of each other, and all other varieties be considered as a blending of these, and their peculiarities as sub-typical only, and not indicative of distinct race, the most satisfactory account may be rendered. We shall then have the Caucasian, the Mongolian, and the Nigritian races, as distinctively marked types in our common humanity. There are, in the geography of Asia, two elevated plateaus, stretching from west to east quite across the continent. The western commences in Turkey, and has the Caucasus on the north, and the Tauras and Kurdistan on the south, and passes on through Persia to the Indus, having the table-lands of Iran as its eastern extremity, and declining to the plains of the Tigris and Euphrates on the south, and of the Caspian and Bactriana, with the rivers of Sihon and Gihon on the north. Then commences a far more elevated table-land, having the Himmalaya on the south, and the Celestial and Altai mountains on the north, and stretching eastward to the sea of Ochotsk on the Pacific, descending to the great peninsular plains of the Hindustan, farther India, and China on the south, and the frozen plains of Siberia on the north. This eastern Asiatic elevation contains Mongolia and Chinese Tartary. If we call the first the Caucasian, and the second the Mongolian table-land, we shall have the cradles of the three races of mankind, and the names for two of the most distinguished and the most numerous.

The Caucasian race is that of the most perfect type of humanity, and may be said to have its centre and most distinguished marks in Georgia and Circassia, and to be modified by distance and other circumstances in departing from this geographical centre. The peculiarity of the Caucasian type is that of general symmetry and regularity of outline. The head oval; the lines of the eyes and the mouth dividing the whole

face into three nearly equal parts ; the eyes large and their axes at right angles with the line of the nose, and the facial angle about ninety degrees, with a full beard covering quite to the ears. The complexion is white, and the stature tall, straight, and well proportioned. The Caucasian race can be followed through various migrations from the original home, as peopling southern and western Asia, northern Africa, and almost the whole of Europe. In southern and western Asia, we have the Hindus, the Semitic families of the Hebrews, Assyrians, and Arabians ; in Egypt and Mauritania, the Mitzraim stock ; and in Europe, the old Pelasgic tribes of the Mediterranean, with the successive Scythian irruptions ; the old Celtic, Teutonic, and Gothic branches of central Europe, and the Scandinavian and Sclavic tribes of the north of Europe.

The Mongolian race differs widely from the Caucasian, and is quite inferior. Their home is in a more cold, hard, and inhospitable region. The highest mountains in the world environ and run through this immense plateau of western Asia, covered at their tops with perpetual snow, and, especially at the south, fencing off all the warm and moist gales of the Indian Ocean, and with only few and distant openings for any communication with the vales below on either side. The primitive type of the Mongolian is a triangular or pyramidal form of the head, with prominent cheek bones ; the eyes cramped, and standing far apart, with the outer corners greatly elevated ; the facial angle eighty degrees ; the nose small ; the hair coarse, black, and hanging lankly down ; with scanty beard, which never covers the face so high as the ears ; and a bronze or olive complexion. The expansions of this race have passed down to the south and the north ; and have extended westward in the old Turcomans, the Magyar or Hungarian people, and the ancient Finns and Lapps in the north-west corner of Europe ; and to the north-east of Asia in the Yacontis, the Tschoudi, and the Kamtschatkades. The Tartars once

overran and subjugated the Sclavic tribes in European Russia, but a combined resistance drove them to return to their own family in Asia.

The Nigritian race, which in Central Africa becomes the full-typed Negro, has a less distinctly marked central origin. Circumstances, however, determine the region which must have been the cradle of this race. At quite the eastern portion of the Caucasian table-land, or perhaps in the valley of the Indus and at the foot of the Himmalayas must have been their origin. There are now black people in this region, and of a wholly different type from the Caucasian or Mongolian. But the branching off of the propagations from this stock, from this point, is the surest evidence. The characteristic marks of the Nigritian are a dull sallow skin, varying in all shades to a sooty and up to a shining black, with a crisp woolly hair, and nearly beardless, except upon the end of the chin, and, more scanty, on the upper lip. The head is compressed at the sides, the skull arched and thick, the forehead narrow and depressed, and the back of the head elongated. The facial angle seventy degrees, the nose flat and broad, the lips thick and protruding, and the throat and neck full and muscular. A strong odor is constantly secreted from the bilious coloring matter beneath the epidermis ; and from numbers, under a hot sun, becomes intolerable to a European.

They have passed on to the south-east, and been largely displaced in Hindustan and farther India, but were the primitive inhabitants of Australia, and still survive in the Papuas of New Guinea and the more degraded savage of Australia. They also are found in the neighboring South Sea Islands ; and where there is an admixture of the Mongolian blood, among other modifications, the woolly hair becomes a curling, crisping mop, springing out on all sides of the head. To the east, they are still found in Laristan, southern Persia, and, as a mixture with the Semitic stock, in the black Bedoueen of Arabia. But it is

only as they have crossed into Africa, either by the Straits at the south, or the Isthmus at the north of the Red Sea, and passed down into the interior of the continent, that we find them in their most congenial and abiding lodging-place. In Abyssinia are found natives almost black and with crisp hair, but in Senegal and Congo the full negro type is completely developed. From hence they have been violently and cruelly transplanted as slaves to other continents, and especially to America. The Maroons, escaped from Spanish and Portuguese masters in South America, have formed independent communities in the congenial swampy regions of Guiana, and farther on upon the banks of the Amazon, and in the absence of other races have rapidly multiplied.

In addition to these, some put the Malay and American races as equally exclusive and distinct. But the Malay is manifestly a hybrid stock, and is nowhere marked by a distinctive type that is expansively homogeneous. The peculiarities of the Mongolian always more or less appear in the pyramidal head, prominent cheek bones, and scanty beard, but other modifications abound as the mixture of the Nigritian or Caucasian is the more abundant. They are usually inhabitants of the coasts and parts of islands, but are seldom the controlling people of any region. Their most central locality is the peninsula of Malacca, but they are found also on the Indo-Chinese coast, in the island of Madagascar, in the Pacific Archipelago, and indeed it would seem that the extreme South American and Patagonian were expansions of the Malay stock. The American, again, is pretty manifestly the Mongolian. The high cheek bone, the scanty beard, and copper complexion, bespeak the Mongolian parentage; and except in the Esquimau of the north, or the Patagonian of the south, there appears no particular characteristic demanding the supposition of any blending of races, and the Esquimau may be only the lowest degradation of the Mongolian, as the Hottentot and Bushman is of the Nigritian.

The three races may in this way be made to include the human family, and any other broad and long-continued distinctions may be considered rather as sub-typical, and indices of amalgamation, rather than exclusive typical divisions of race. But an exact delineation and separation of the races is of less importance than the conviction that all races may participate in the common experience; and for this there is ample assurance, since they all will be found to possess the characteristic traits of humanity. The differences are still within a common family.

Among animals, there is at least as great a distinction between such as are undoubtedly of the same species, as in any difference of race among men. There are wide differences of race in neat cattle, horses, and especially dogs, where there is no ground to suppose that they sprang from an originally distinct created ancestry. In the case of swine and sheep, peculiarities have arisen within very authentic tradition, from some great change in a single case, and which have been perpetuated with all their typical marks, in a variety so broad as to make them henceforth properly distinct races. Domestication in fowls, as well as animals, has produced such remarkable changes, and which perpetuate themselves from generation to generation, that we ought not to be surprised at the distinctions which circumstances may work among mankind, even to so great a degree as to be truly separations of race. Individual differences and peculiarities, and class and tribe distinctions, are greater among men than among the same species of animals; it ought, then, to be anticipated that human races may be broadly discriminated.

But, while there is this broader diversity in different portions of the human family, there is also, on the other hand, stronger indications of unity, linking all the typical races into one common brotherhood. The common powers of speech and language; the kindred emotions, sympathies, and appetites; the

convictions of responsibility to law, and the establishment of political governments ; the sense of dependence upon an Absolute Spirit, and the propensity to some religious worship ; the similarity of capacity in forming habits, coming under discipline and receiving cultivation ; and the sameness of times in the age of puberty, menstruation, and gestation, except in the modifications of manifest causes ; all determine that mankind of every race are yet the children of one family. In addition to all this, there is the great fact, that the races amalgamate and propagate from generation to generation, which is in contravention of the law between wholly distinct species. A few only can at all produce a hybrid offspring in a cross-generation, and when they do, the progeny is either sterile or tends back to the species of one parent. The conclusion from this is certainly quite sound, that the distinctions of race among men are adventitious, and that human beings are of the same species.

The argument for different species through a distinct original ancestry, from any supposed different centres of propagation, is altogether inconclusive. At the widest distance apart, it is still wholly practicable that all should have been cradled in the same region. The Patagonians or the Esquimaux may have an ancestry who wandered from Central Asia, and such a supposition involves no improbability. Indeed, all tradition, so far as any is found among the scattered tribes of humanity, as well as all other indices, point to a common locality whence all have departed. The substantial facts of the Mosaic account are of all statements the most probable in themselves, and the most consistent with whatever other historical transmissions we possess.

It is not probable that distinctions of race at all took their rise in the three sons of Noah. Nor is it to be supposed that any three different pairs of the human family, at any age, originated the three great distinctive races, and then, excluding and exhausting all others, at length came to people the world be-

tween them. Strong typical peculiarities somewhere began, and absorbed and assimilated all others within them. And thus, taking intrinsic germ and extrinsic circumstances, as given in humanity and outward nature, we find the fact to be, that mankind has worked its propagations in the three different fundamental types, of the white and bearded, the olive and beardless, and the black and crisp-haired races. All other varieties may readily be reduced to some blending of these generic peculiarities. These distinctions of race are older than history, and the combination of Egyptian, Assyrian, and Hindu sculpture may give us the whole, as complete in unknown centuries backward, as any living specimens of the present age can furnish.

3. *Differences of temperament.* The different temperaments among men have from ancient times, with great unanimity, been classified as four, though the source of this division has been variously stated. It is most easily conceived by referring it to the different subordinate systems which the body as an entire system has within itself, and which minister together for the growth and preservation of the whole. Conspicuous among these are the nervous, the muscular, and the digestive systems ; of which the nervous and the digestive will each give one distinctly-marked temperament, while the muscular system furnishes a source as clearly defined for two.

A predominating energy and activity given to the nervous system induces the *sanguine* temperament. In the nervous system provision is made for animal sensibility and motion ; and where this is preëminently vigorous, the individual is prompt to respond to every excitement. In this is the peculiarity of the sanguine, or, as sometimes called, the nervous, temperament. Such a constitution will readily wake in sudden emotions, and be characterized by ardent feeling, quick passions, impetuous desires, and lively but transient affections. There is a strong propensity to mirth and sport, and it easily habituates itself to a life of levity and gaiety. If sudden calamities occur, the san-

guine temperament is readily overwhelmed in excessive grief, and melts in floods of tears for every affliction ; but soon loses the deep sense of its sorrows, and springs again buoyant to new scenes of pleasure.

In literature, this temperament prompts to a highly-ornamental and florid style, and abounds in striking expressions, glowing imagery, strong comparisons, and perpetual hyperbole. Whatever awakens emotion will be agreeable, and it opens itself readily to the excitement of music, or painting, or eloquence ; especially when the appeal is made to the more lively and sprightly sensibilities. There is a perpetual propensity in all its exercises to excess and exaggeration, to intense feeling and passionate excitement. The action is impulsive ; the resolutions suddenly taken, and immediately executed, before unexpected difficulties, or long-resisting obstacles, are easily disconcerted and turned off in other directions.

This temperament is often found strongly marked in individual cases, and sometimes gives its controlling peculiarities to national character. It is the temperament widely prevalent in the French nation ; and, though much modified in the form of its action, is still also the prevalent temperament of the Irish people. Single persons, among both the French and Irish, are characterized by other temperaments ; but the controlling type is that of the sanguine, which appears in their habits, their literature, their eloquence, and their military exploits.

Where the digestive organization is vigorously active, and the vital force goes out strongly in the process of assimilation and nutrition, there will be the *melancholic* temperament. Its general constitutional habit naturally disposes to quietude and solitary meditation, declining towards serious and often gloomy reflections, and under extreme ascerbities becomes a sour and austere asceticism. A man of melancholic temperament, however, is not necessarily a melancholy man. When moderately controlling, such a temperament gives a sedate and contempla-

tive habit of mind ; though it may, when strongly prevalent, induce sadness and even moroseness. Its prevalent tendency is meditative ; it delights to live in a world of ideal creations, and will often be found voicing itself in lamentations over the departure of former goodness and greatness, or perhaps as often in longings for imagined scenes of ideal perfection.

This is rather the temperament for particular persons than for collective communities ; and can, perhaps, in no case be said to have constituted a national peculiarity. It may be found the most frequently in the contemplative and speculating German ; but its clearest exhibition is in scattered individuals among all ages. Jeremiah, Homer, Plato, Dante, Raphael, Beethoven, Cowper, Byron, Tennyson, Schiller, are all, in different forms, examples of the melancholic temperament. Generally the great genius in art, and often also in philosophy, will possess this temperament.

Where the muscular system is strong and of quick irritability, and the connected arterial action is full and rapid, there will be given the *choleric* temperament. Its tendency is to prompt and sustained activity, to enlarged plans and hardy, patient endurance in execution, to difficult enterprises, and courage and resolution in meeting and conquering opposition. Its aims are high, and its ends comprehensive ; demanding plan and calculation for their success, and time and combined instrumentalities for their accomplishment. With a bad heart, the enterprises may be malignant, and their prosecution shockingly cruel, bloody, and ferocious ; or, with a good heart, benevolent, and urged on with a generous and noble enthusiasm ; but in each case there will be determination, self-reliance, and invincible decision and persistence. Magnanimity, self-sacrificing chivalry, and exalted heroism, will compel admiration for the actor, even in a bad cause, and secure lasting respect and veneration for the dauntless champion of truth and righteousness ; and, in each of these fields so different in moral estimation, the choleric

temperament may be found, but direct, determined, and persevering in both. The energy of muscle stimulates to enterprise of mind.

The old heroes of Lacedemon, the old Roman generals and armies, may stand as examples, of numbers together, who have been prompted by the influences of a constitutionally choleric temperament; but in quite opposite moral scenes, we may find the most striking instances in separate cases. It has revealed itself in the ambitious and the benevolent; the usurping tyrant and the strenuous resister of tyranny. Cæsar and Brutus had each a choleric temperament. Bonaparte and Howard, Hampden and Laud, Herod and Paul, all were choleric.

On the other hand, if the muscular system is less energetic and irritable, and the vascular system more quiet and the circulation calm and equable, there will be the *phlegmatic* temperament. This, again, is named from the extreme indices of its class; and when the temperament is emphatically phlegmatic, it is meant that the mind is heavy and torpid, and the man sluggish and approaching to the stupid. But when only moderately phlegmatic, this temperament is especially favorable for well directed, long sustained, and effective mental activity. In the quiet and orderly movement of the vital functions, and the well tempered muscular energy, the mind finds its opportunity to go out full and free to any work, with a sound and calm judgment. Where the sanguine would be impulsive and fitful, the moderately phlegmatic will be self-balanced and stable; where the melancholic would be visionary, and either romantic or dejected, this will be practical, judicious, and cheerful; and where the choleric might be strenuous and obstinate, self-willed and irascible; this will exhibit equanimity, patience, and calm self-reliance.

The Dutch, as a nation, approach the extreme phlegmatic point; the philosophic German mind is phlegmatic, tempered with the melancholic; and the practical English mind is phleg-

matic, modified by the choleric. The Dutchman plods, the German speculates, the Englishman executes. The New-England mind is more intensely inventive and executive than its parent Anglo-Saxon stock, in that the Yankee temperament is less phlegmatic and more choleric. The moderately phlegmatic temperament has given the world some of the most noble specimens of humanity. The patriarch Joseph, the prophet Daniel, the philosopher Newton, and the patriot Washington, all were moderately phlegmatic. These temperaments are not always distinctly outlined. They may be so blended in some persons, as Shakespeare or Leibnitz, that we cannot tell the prevailing temperament; but the distinction remains as an obvious general fact. But though men differ among themselves from this constitutional difference of temperament, there is still a common experience for them all.

4. Differences arising from bodily weakness.

In the *immaturity* of bodily development in youth, the action of the mind is also immature, nor can any intellectual culture hasten very much the mental faculties to maturity beyond the growth of the body. An earlier and better course of instruction may give to one child's mind much greater attainments than to another; but at the widest practicable difference, it will still be one child's mind differing from another child's, and neither will show the manly mind until the body has its manly stature. And thus also in the decline of life through growing years; the body does not long pass its maturity, and begin to experience the infirmities and decrepitude of age, but that the vigor of mental exercise suffers a similar decline. The steps are not always, nor indeed often, exactly equal between the two;—the mind sometimes seems to triumph over every bodily infirmity,—still the steps tend ever in the same direction; and while one may hasten at times faster than the other, they are not long at the same time found going in opposite directions.

The *sickness* of the body, at any period of its development,

works its effect also in the actions of the mind. The mental faculties are ordinarily paralyzed, in the languor and weakness of bodily disease. Instances are sometimes given of feeble health and bodily suffering with much mental activity and power; but such cases are rare, and though perhaps occasionally giving examples of an energy of mind, which resists and conquers the tendencies of a sickly body, yet, unless preternaturally quickened by the very excitement of bodily distress, the strong probability is, that those very minds would have had more vigorous and active exercise had they been lodged in sounder bodies. They can hardly constitute exceptions to the general rule, that the sound mind must have a sound body for its sound expression. The dismemberment or derangement of any particular organ of sense affects at once the power of perception through that organ; and a given degree of violence to the bodily structure, and especially of percussion upon the brain, immediately arrests all consciousness and leaves a blank in all the operations of the mind. Sudden shocks given to the bodily frame are often attended by the distressing mental phenomena of swooning, syncope, delirium, etc.

A still more remarkable difference of the mind's action, appearing in connection with bodily exhaustion, is found in the state of *sleep*. Every sensation and motion requires the expenditure of its exact equivalent of nervous force, which force thus used becomes used up, and is no more available. Such a process continued without interruption would exhaust the nervous energy, and neither sensation nor motion could longer be. Provision is therefore made in the bodily system for interrupting this exercise, and, by repairing the waste which sensation and motion require, furnishing means for their continued repetition. These interruptions are known as sleep, wherein the body has slipped away from the activity of its sensory and motor powers, and the mind also has slipped away from its self-consciousness and self-direction. Thus both the mind and

body sleep. Urgent claims and exciting exigencies may drive off sleep for a time, and protract the period of wakefulness ; but at length there comes the limit, beyond which no effort nor exigency can prevent sleep. The fatigued soldier sleeps amid the carnage of battle ; the exhausted sailor sleeps upon the top of the mast ; and instances are related like that of Damiens, who slept upon the rack in the midst of his tortures. When the man again awakes in clear consciousness, he finds both his bodily and mental faculties revived and invigorated.

Sleep does not imply entire quiescence either of body or mind. Respiration, the circulation of the blood, digestion, and assimilation do not cease while the body sleeps. Indeed, it is during sleep that the functions of nutrition go on unhindered, repairing the tissue, and restoring the energy which wakefulness had wasted. It is especially the nervous system whose activity is suspended in sleep. Plants, having no nervous system, can be said neither to sleep nor to wake ; and probably the same is true in the simple forms of animalcular life.

It is only in respect of some of its functions, not of all, that the mind can be said to be inactive in sleep. Its power of perceiving external objects is not exercised ; its self-consciousness seems wanting ; its volitions, at least so far as consciously manifested, are suspended ; and yet there are some facts which indicate its continued and profound activity. Instances are not wanting where persons have arisen in deep sleep and performed mental operations which they had vainly striven to do when awake. Poems and discourses have been composed in sleep. Long-forgotten facts which the mind by no efforts when awake could recollect have been recalled in dreams, and retained when the mind again awoke. Unless there be a continued activity of some of the mental powers during sleep, it is not easy to account for the fact, that the mind can accustom itself to obey its purpose made before going to sleep, to awake at a certain hour, as experiment has repeatedly shown can be done.

5. Differences from the interaction of body and mind upon each other.

Body and mind are so closely connected that it may be doubted whether anything ever takes place in the one without registering its effect in the other. Not only is the action of the mind powerfully affected, as already noticed by the condition of the body, but the condition of the body is often so manifestly dependent upon the operation of the mind, that probably every mental exercise could by the skilful eye be detected in its bodily expression. Physicians have long known, and very carefully regarded this fact in their medical practice. Confidence and the expectation of happy results are almost the necessary conditions of any very favorable effect from any prescribed remedies. Not unfrequently most remarkable cures of chronic diseases occur from the strong excitement of intense expectation, while at other times diseases prove fatal from an irritable or a desponding state of mind, which might otherwise, to all appearance, have been readily cured. Epidemics often spread through large communities, from the general prevalence of a panic, or diffused sympathy over the region, and cease when the panic subsides, or the public attention becomes directed to other objects.

A very slight emotion may hasten or retard the beating of the pulse or the play of the lungs, while strong mental agitations so immediately and invariably show themselves upon the body, that we at once determine the inward exercise from the outward bodily affection. Joy, grief, anger, fear, etc., when strongly active, are as readily apprehended in the countenance, as by a direct communication with the spirit itself.

Remarkable cases of mental emotion reacting upon bodily organization are sometimes given in the effects upon the unborn infant, from strong maternal excitement. So, also, there are instances where a healthy infant has seemed to be poisoned, and has actually died at the breast, when the mother was suddenly and powerfully agitated by some unexpected tidings. The adult

body is sometimes strongly and permanently affected, from the reaction of powerful mental excitement. Digestion is known to cease by the influence of violent passion. Lasting distortions of the muscles, and a changing of the hair to permanent whiteness, have been induced by paroxysms of mental agony.

Bodily habits also arise and become confirmed, through the action of some permanent mental peculiarities. A peculiar train of thought, or course of study, or any special channel through which the intellectual activity is made to move, will shape a person's air and general manners and demeanor. Hence different professions and employments in life, where strongly engrossing, give their distinctive peculiarities, and form well-known classes of men in their general appearance. So the members of the body, by the long control of the mind over them, become habituated to certain movements, and thus are made skilful in many employments. The limbs move almost spontaneously from such habits, while formerly the action could scarcely be effected by the most painful attention. So in mechanical trades, playing on musical instruments, especially in penmanship, and the use of the organs in speech, the muscular movement becomes so much a matter of habit that the man ceases to think of his voluntary control over it.

Strong mental effort often indicates itself in external bodily changes and motions, and the kind of inner action marks its struggling energy in the appropriate outward expression ; the eyebrows are raised, or the lips contracted, or the nostrils dilated, or the shoulders shrugged, or even the whole form expanded and elevated, from the mental energizing. A player at bowls or quoits involuntarily distorts and turns his whole body awry, when that which is thrown is seen moving wide from the mark ; while the body is as spontaneously made erect and rigidly straight when the thing thrown is moving direct to hit its object. When striving to communicate in an imperfectly understood language, the mind, in the same way, reacts upon the

body. Unconsciously, every limb and muscle is made to gesticulate, and the whole body takes on those attitudes which help the mind to give over its thoughts to another. Particular and permanent expressions of countenance are thus naturally induced. The inner emotions have so energized to give their outward expression, and the frequent action has so brought the muscles under their controlling forms, that the marks have become firmly set upon the features, and the face is made to look the full reflection of the inner prevailing disposition. The old proverb, "Handsome is that handsome does," is thus founded in truth; and the general principles of physiognomy have a truly philosophical basis. The law of mental action has its exact correspondence in the bodily organization.

Our short study of anthropological distinctions shows clearly that humanity, though having intrinsic differences, is yet, in the common conviction, a separate whole, and has a common experience which, while it includes all men, embraces mankind only. This common experience holds all that is peculiar to man, and excludes all that is not in some way common to man. It thus holds all that is necessary to be known in order that we may know what is in man. If then "the proper study of mankind is man," the only way for man to know himself and his fellows is carefully and thoroughly to study his and their common experience. This then is our field, which alone is henceforth to furnish us the data for an *Empirical Psychology*.

EMPIRICAL SCIENCE.

TO experience is to try by using; and so experience, in common, is the *trial of any faculty by its use*. This definition gives the full meaning to that experience we have now attained in the study of Anthropology, and which we have termed *the Common Experience of Humanity*. There are some men who seek to know this common experience more accurately and thoroughly than does the common mind; and so they try the experience over again, and subject its facts as they recur to a more rigid and exact scrutiny. By such repeated and assisted observation, and by registering the results with fidelity for lasting future reference, there is gained what is well known as *Scientific Experience*. When the facts which have been thus tested have been sorted and classified, we have *Empirical Science*, which, beginning in and remaining with the common experience as it must do, can only become a Universal Science by reaching to all experience. In its highest experiment it may find a faculty unacknowledged by sense, but which establishes a philosophy comprehensive of all senses.

SECTION I. THE GENERAL METHOD OF EMPIRICAL SCIENCE.—
The end sought in empirical science is a more accurate and thorough knowledge of the facts in common experience; and this end is found only by repeatedly testing the certitude of old facts through new experiments. This involves, as the general method for the science, that the facts should be exactly attained,

correctly assorted in classes, and consistently arranged in a system.

- I. *The attainment of the facts exactly.*
- II. *The assortment of the facts in classes correctly.*
- III. *The arrangement of the classes in system consistently.*

In following out this method deliberately we shall see that it is not anything factitious, but that in all ways it only expresses the natural tendency.

I. *In the exact attainment of the facts.*

The facts of hearing, seeing, smelling, tasting, touching, are distinguished from each other by the common mind. The common experience thus is not a promiscuous mass in undistinguished manifoldness, but has already been made a world of intelligent facts in their singleness and definiteness, by an actual trial in the common use of the special senses. The scientific experience tries these facts over again, in the use of these same special senses, which are now greatly assisted by their repeated and more varied and careful application. The result is a more exact recognition of the old facts by this new testing observation. And then the like scientific trial is carried out further within the as yet unexplored facts of nature. The interest in these new experiments incessantly urges on to fresh attainments, that all secrets may be laid open. The common experience gains large accessions in these new experiments, not in their scientific dress, but by its recognition of the bare facts which the armed and assisted senses have discovered.

II. *In their correct classification.*

The common mind has made its marked distinctions in its acknowledged attainments, as we have seen in Anthropology, and has separated mute matter from living bodies, vegetative life from animal, and the brute experience from the human; and then the further study has found in the human the separations of race, sex, temperaments, with the resulting changes from the conflicting and coöperating interactions of mind and body.

All these invite the scientific mind to test their correctness, and then to follow them out to a more complete classification in the newly-discovered sorts of facts which later experiments disclose.

This testing of like by like naturally leads to the discovery of new similitudes and differences, and thus to the multiplication of sorts demanding appropriate classifications. The urgency in this direction of improved and enlarged classification must manifestly prove to be practically irresistible.

III. *In their consistent systematic arrangement.*

The certain tendency of such empirical sorting of the facts old and new through all their ascertained varieties, is to get the varieties to stand in their specific connections, and these in their rising generic relations, all urging the solicitous attempt to find for all—which, however, no merely empirical science can find—*their comprehensive conception in an absolute source that may be both original and ultimate.*

There are two methods in which a classification may be conceived as progressing : one, where the order of nature is followed, by beginning at the centre and working from thence outward ; the other, by taking nature as already a product, and beginning at the outside and working within, as far as practicable. The first may be called the *order of reason*, inasmuch as the reason would so take the moving force, or conditioning principle, at the centre, and follow it out to the consummation ; the second may be called the *order of science*, inasmuch as in experience, the thing is already given, and we begin on the outside and follow up the discovery, as far as we may, to see how the product was effected. The genius on whom first dawned the idea of a watch, would begin, in the thought, with the moving power at the centre, and carry this force, in its development of forms and connections, outward, till in his completed conception he had the whole in its unity, from the main-spring to the moving-hands over the dial-plate. But the discoverer of how a watch already in experience had been invented, would begin his exam-

ination at the hour-index, and go backwards toward the central force in the main-spring. Both get the science of the watch ; one *makes* it, the other *learns* it.

In empirical science we can only be learners. We must study what is, not project what may be. Nature began at the centre and worked outward. She had her vital force in its salient point, and carried that out to the mature development. The germ expanded to the ripened plant ; the embryo grew to the adult stature. But the empirical philosopher can take nature's products only so far as already done, and study as he may how nature's process has been. He is shut out from nature's hiding-place at the centre, and cannot determine in the primal cause what the effects must be. He experiments, and only learns nature as she has already made herself to be.

So we must study experience. We are to attain the facts in completed system, just as the reality is, and not form some ingenious theory, nor adopt some other man's theory, which we strive to maintain without nature, or in spite of nature. Valid facts, classified according to their actual connections, will give a science which proves itself. In it, all confusion will be reduced to order ; it will expound all anomalies and expel all absurdities, and stand out the exact counterpart of the reality.

The general order of classification, thus determined to be that of science ; there need only be added the following general directions :—

1. Permanent and inherent relationships between the facts are alone to be regarded.
2. Homogeneous facts only may be classified. Nature nevermingles contraries together.
3. The system must find a place for all the facts.
4. When completed, the system must be harmonious and self-consistent.

SECTION II. SOME OF THE MOST GENERAL FACTS IN EMPIRICAL PSYCHOLOGY. — This general method of empirical science will at

once disclose some of the most important general facts of empirical psychology. In the common experience of men there is a direct impulse to test and examine this experience ; and this introduces immediately the most distinctive characteristic of humanity from all other facts in common experience, viz., the capability to exercise free thought. Every application of scientific experiment evinces this most important General Fact :—

1. *The Actual Existence of Mind.* The common experience has made the common discrimination between matter and mind, and the more close discernment of a difference between animal sensation with its appetites, and man's reflection with its self-restraint ; but these differences, though standing in full conviction, have not so been examined and tested that their certitude can be fairly expounded and defended. Under the stimulant of surprise and wonder on the occurrence of some noted event, and the solicitude of an anxious curiosity to find the full truth of the experience, a wide and wise arrangement is made for trying over again a similar event at any time of its probable recurrence. In such an agency for arranging and applying new experiments in the interest of science, there is the opportunity for studying the human mind to better advantage than the entire field of common experience can present.

Rising out of common experience, and here overlooking and anew testing some of its old facts, we may well term this scientific agency, emphatically and eminently, *Mind*, and may take occasion to ascertain its being and its properties by its scientific working much more convincingly than our anthropological studies afforded. Wherever, in any and every age, the works of nature and of man have been subjected to close experiment, there this mind has evinced its presence and its power, and never more abundantly than in our own generation. The proofs that it is are no more unquestionable than the manifestations of what it is. Coming out of and standing over common experience, that it may anew try and test its certitude to the end and for the sake

of its own knowledge, it therein discloses its self-activity and eminent spontaneity. It finds its motive in itself, and works to the end of its own education. It intends to clear its vision and satisfy its own intelligence by its own action. Of its own accord, and for its own conviction and self-possession of the truth, it sets itself to the analysis of every fact, and the accurate and complete sorting and classifying of all common experience.

We may confidently, then, take this scientific mind as having attained to the knowledge of its being and spontaneous self-action, while we leave to a coming more favorable opportunity the explanation of the difference between this spontaneous free-thinking and the responsible agency of a will in liberty.

Such scientific mind in its spontaneity has the capability to reach a further General Fact : —

2. *That it can distinguish its objects from each other, and all these from itself.* In possession of this scientific spontaneity it may apply its new experiments to any material fact, and test its impossibility to evince any exhibition of its origination of action from itself. Matter is mechanical only, and may push or pull only as it is pushed or pulled, and may exhibit motion accordingly. The motion continues while the force acts, and ceases when the force finds its equilibration ; and when the matter rests it never sets itself again in motion. It has inertia, not spontaneity. Matter may be mechanically so arranged as to start in motion at a given touch or a continuously-applied spontaneity ; and such machine may have the semblance of spontaneity, and its movement may be called *automatic*, just as the clock may move in time and strike its own hours, or the music-box may play out its own tune after its own measure ; but no machine can put itself together, nor start itself in motion, nor wind up itself when run down, nor repair its own injuries, nor reproduce itself in its descendants. But the plant with vegetative life is truly spontaneous, and, in appropriate conditions, starts itself from its germ, builds up and repairs the waste and

injuries of its own body, and reproduces others of its kind through passing generations. The scientific free mind makes its close and fair experiments on mute matter and living body, and knowing what its own spontaneity is, knows also that no experiment finds as yet spontaneous matter except as life is infused through its entire organism, and that in this spontaneous origination of motion is the discrimination between mechanical force and living energy.

And so, again, scientific experiment finds the higher spontaneity of sentient life in the animal, which evinces its capability of building up a nerve organism and exhibiting sensation, and conscious perception, and locomotion, and reproduction of the like organisms in its posterity ; and in this advanced spontaneity, the true scientist knows, is the difference between the plant and the animal ; and also knows that no fair experiment has as yet found the plant passing over into the animal spontaneity, and then doing the work and reproducing the descendants that do the work of conscious perception through special sense-organs. So matter and life and animal sensation are known by the human mind to differ from each other, and are never found in any experiment to run together and confound their distinctions within any line of descendants.

But in and by its scientific experiments the scientific mind does know itself to have sprung out from common experience to its higher knowledge, and that the common experience by appropriate cultivation may be anywhere made to furnish examples of the like exaltation,—examples which no cultivation of the plant or the animal have ever furnished. Herein the scientist learns that it is in his higher native endowment that he can distinguish himself from all the lower kind of being which can become objects of his observation. So, also, he learns that while all his fellow-scientists exhibit the like scientific spontaneity, he distinguishes himself from them by his knowing that *his* work has been done from his own free accord, and in the

end and interest of his own attainment of the truth ; and thus that he and they differ from each other only in this, that each, while self-moved, has his own separate spontaneity, identical with none other, as his mover.

3. *The mind can distinguish between itself and its acts.* The scientific mind recognizes that its acts are its own, and that they spring from its spontaneous energising ; and that thus they stand out face to face as object (*obvius jaciens*) for it, while it stands beneath them as subject (*sub jaciens*). As subjective, the mind possesses them, and as objective, they are the mind's properties ; and thus the mind distinguishes between it and them, and can make them the objects for its repeated and exact experiments, as readily as any objects it attains from matter, plant, or animal. In its own field of conscious objects there is at least as sure a ground for empirical science as in the field of common experience. Of its own accord it can make its own acts its facts for scientific experiment, and try over again the facts of its own experience with, perhaps, more confident conviction of the certitude of their being, relations, and assorted classifications, than in the case of any scientific system of matter, plant, or animal. To the mind itself, its own inspection must give the surest conviction ; but for common reception there must be an accordance with the common scientific conclusions, or the discordant single experience must be considered an exempt case standing alone in its idiosyncracy. The attained common experience insures that all single experiments in one mind must be in general conformity with all others. The common experience, tested by accordant scientific experiments, must be the criterion for accepting the inductions of any one mind from its own examination.

From the above General Facts of mind we may attain a generalization universally comprehensive of experience as distinguished into two classes. The human mind, as given in scientific experience, stands as one class, over against which all

other being—animal, plant, and matter, as they are found in scientific experiments—stands as another class. The one class can be cultivated to the elevation of scientific spontaneity, the exercise of free-thought ; the other can exhibit no pretension to the attainment of mental dignity that deserves classification with scientific mind. The higher orders of animals perceive, remember, and perhaps exercise thought and judgment, and form deductions from remembered experiences, sometimes seeming to do this with surprising acuteness ; but no sentient brute has ever originated and executed a scientific experiment. We may thus divide all that is included as fact within common experience, and one class will contain only the *physical*, and the other class will be wholly *psychical*. The former can be tested by experiment ; the latter only can apply the test and make the systematic classification. The psychical class may direct its experiments to the ends of a science that shall comprehend and classify its own facts of being and action, and this will give an *Empirical Psychology*.

The point thus attained permits us to see that, while physical science may be prosecuted by mind, there can be no science, physical or psychical, that can be attained without mind ; and that EMPIRICAL SCIENCE IN GENERAL can no further be pursued intelligibly but through the application of psychical agency. The course of science must needs now pass through Empirical Psychology, and thence attain to a Philosophy that may comprehend the physical and psychical together ; and of the twain, with all their differences, must ultimately make one consistent and universal system.

EMPIRICAL PSYCHOLOGY;

ITS MEANING, ITS PRIMITIVE FACTS, AND ITS SPECIFIC METHOD.

SECTION I. THE MEANING OF EMPIRICAL PSYCHOLOGY.

THE facts needed in our science are already given in common experience, and empirical science in general requires that they be found, classified, and completely systematized. Scientific experiment finds these facts standing in two distinct divisions, as Matter and Mind, and thus classifies all facts of human experience as Physical Facts and Psychical Facts. But science seeks unity, and can only rest as these two classes of facts are set together in one consistent system. This, however, is of course impossible without some element which can dominate them both ; and, since it is supposed that all the facts in humanity are contained within this physical and psychical experience, this dominating element has hitherto been mostly sought in one or the other of these two classes,—on the one side regulating all scientific thought by the working of Matter in experience, and on the other by the working of Mind in experience. Neither of these two schools of thought—known as the older logical, and the newer critical, modes of expounding Psychology—can find in its side of experience the one principle that may comprehend both sides ; and we therefore here pass them both by, leaving for a more favorable position, at the end of this work, the summary of their process and the result each attains.

Since each has been found hopelessly defective, we shall look elsewhere for the dominating principle we need, and see if, by a careful experiment, this may not be found in a higher human faculty than any indicated by Scientific Thought.

This indicates the meaning which we wish to give to our Empirical Psychology, and the end we design to attain by it. Inasmuch as the human psychical being differs from the animal, and all other physical being, in that he can test all facts by scientific experiments, so we propose to test by accurate experiments the whole mode of human knowing in experience. We expect thereby not only to get the truth about this knowing, but also to put ourselves in position for determining correctly whether this scientific superiority in man is because he has a greater *degree* of the spontaneous faculty than the animal, or whether it is because he has something different in *kind* from anything which the animal possesses. We wish to see whether it be not possible to make a deeper experiment, whereby there shall be scientifically disclosed another and higher faculty altogether than that of spontaneous reflective thought, by the presence of which higher faculty this free-thought has been all along quickened, even if not acknowledged, and which when fully recognized may be seen to have the clear power — otherwise found unattainable — to bring the physical and psychical together in one system. Such a satisfactory result we quite confidently assure the ingenuous student will reward his patient perseverance.

Such being our meaning and intent in the work before us, we ought to get at the outset, and then not lose, a clear recognition of the exact distinction between the physical and the psychical, which scientific experiment attains as plain matter of fact, — though we need not yet make any attempt to expound what lies back of the fact, and determines that it and our experience of it are as they are. Matter is found with mechanical push and pull inhering within it ; and when these two are balanced in equilibrating resistance, there is rest ; while when the

one exceeds the other, there is motion. In motion or at rest matter can originate no changes ; and this inability is its *inertia*, the opposite of *spontaneity*. Matter thus may be so arranged, from agencies beyond itself, that on the balance between its push and pull being broken there will be motion to a designed end till the balance is restored ; and such movement is known as *automatic*.

Life in matter, living body in certain specified conditions, originates motion from itself, makes and mends its own body, and reproduces its descendant organisms from generation to generation. This is *spontaneity* in its lowest mode of manifestation. The conditions invite or solicit the movement, and but for their presence the spontaneity does not act, but in their presence the life originates motion of its own accord.

Sensation in a living organism, under specified conditions, induces perception, which may be followed by recollection and concluding in judgments from sense experience, in a being which can also propagate its kind from age to age at its own accord. This is quite another and higher manifestation of spontaneous action than the plant reveals, and comes from what may be known as *sentient spontaneity*.

None of the above modes of manifesting motion are ever found, in any experiment, to pass over from their own mode of action after their kind and invade the province of another spontaneity ; and no one of these can, in any experiment as yet made, be so cultivated by art as to invent and apply the tests of scientific experiment. They all stand together in the one division of *Physical Being*.

Over against all these stands the human being, with his common experience, and also the many cultivated minds of his class who are scientifically trying over again the common experience of all, and who thus reveal the capability of a much superior mode of experience known as *spontaneous thinking*. This, in given conditions, originates new and complicated series

of experiments, rigidly testing old experiences, and then classifying scientifically only the well-attested facts. The common mind is accounted to have the same native faculties as the scientific, and so the human family with all its distinctions of race and cultivation, having all in their degree this higher endowment of a scientific spontaneity, goes to make up the class of *Psychical Being*. These two great classes make up the full sum of common experience, whose facts are to be found, sorted, and universally systematized. It is our meaning now scientifically to try over and thoroughly test all psychical facts, and thus to pass from the field of General Science to Empirical Psychology.

SECTION II. PRIMITIVE FACTS.—The entire psychological process has one invariable order. Experiments testing it a thousand times over will all agree in the same general fact as the prime starting-point, and in the same succeeding procedure from this. Sensation, consciousness, knowing, feeling, and willing will mark the beginning of the movement and its orderly succession in every case. These might properly be termed comprehensive facts, since taken together they will be found to comprehend the entire psychology ; but we call them *primitive facts*, because each is not only necessarily prior to its follower, but is truly primal as a class for all the particulars which it embraces.

Man and animal are both alike in that they both perceive, and that their perceptions may be both subjected to scientific experiments, but they differ in that the animal cannot be educated to make the experiments itself, while the man may try over his experience by scientific tests, and may thus become the scientist, even though the common mind while yet uncultivated hardly shows a sign of doing this. It is this scientific mind standing over the common mind and looking in upon its experience which we are now to contemplate, as it searches out and, step by step, makes the whole general process of knowing clear for itself, and then puts it in the systematic form which may become clear also to the attentive learner. Let us now note what results from a

more particular trying and testing of the above-named Primitive Facts in their closely-connected order. The process will need to be diligently pondered, for, however carefully and correctly it may be presented, unless the student by his own scrutiny follows and fully apprehends it, he remains in the common experience, without scientific knowledge.

1. *Sensation.* All tests of experiment in any way fairly applied will show that any organ of sense, left in vacancy, remains inactive. There must first be an invading agency from without, and then a receiving agency from within, or no act of perception is finally attained. The outer body and finger must touch, the vibrating light must enter the eye, and the undulating air the ear, or no advance is begun toward perception. And, further, not only must the invasion and reception be within the organ, but the two activities there coöperate concurrently to one result. The received light, or air, must conspire with the receiving eye, or ear, to induce the one affection appropriate for the organ, or the perceiving process is not hastened but hindered. And still further, the activities must blend in the organ and be no more vibrating light, or air, and receiving eye, or ear, but the co-action of light and spontaneous retina, or air and tympanum, must both together join in one onward movement. Such conjunct activity becomes a *content in the sense*, and is neither the diverse action of outer and inner any more, but the one completed stage of sensation. It is not yet either object or subject, nor is it any more either invasion or reception, but all have become sensation, as merely sense-content.

2. *Consciousness.* Sensation is not yet conscious, but only the prime fact necessary in order to consciousness. The mechanical agency invading, and the spontaneous agency receiving, have blended in a content that is so in the sense as to condition its conscious awakening. The mechanical in the content invites, elicits, the spontaneous therein to arouse itself in wakefulness ; and this waking state, still in concert with the

eliciting, is the opening dawn of consciousness. It is that incipient knowing which takes the content in mass as a somewhat, but has "naught distinctively," and is literally what the word imports, a *knowing a somewhat that is all together*, that is unseparated; a content that has itself and its object still undistinguished.

An ingenious painting aptly represents it. A sister, with look and attitude slyly mischievous, is touching gently with a feather the nostril of her sleeping brother; the point caught by the artist, in the sleeper, is that precisely between full sensation and active knowing. The disturbed nostril is slightly contracted, the eyelids are just opening, and the fingers of one hand are slightly parting; all reveal instinctive action only. An aroused spontaneity is shown awaking in movements that as yet indicate nothing of any direct recognition of the surrounding objects and occurrences. The content in sense has become a content in consciousness, but it is still utterly indiscriminate and commingled. The consciousness has still subject and object, knowing and known, *all together*.

Consciousness may be still further illustrated by its analogy with light in vision: we do not see it, but we see other things by it. *It* is blended with the colors which are in it and which must be separated from it by spontaneous, intelligent action, before they can become distinct perception. The consciousness acting is in its awaking as the light is in its entering the organ; but the awakened consciousness and the entered light are states rather than acts, in which all perceptions and cognitions are constructed. In such analogy the consciousness is truly "the light of all our seeing," and the content in sense, advanced to the content in consciousness, is there in condition for all further spontaneous action. The action and its constructing limitations and distinctions are henceforth in the light, and what is either doing or done in consciousness becomes thenceforward the present or the recollected possession of the subjective mind that

constructs and retains it. Sensation and consciousness are primitive facts that must be tested by experiment, from an outside scientific agency ; but whatever is done and remains in consciousness can be tested anew at any time by the conscious subject himself, putting himself within the capability of self-inspection. Experience once in consciousness holds consciousness open ever after. Excepting in sleep, syncope, anæsthesia, etc., the coming in of new content to the sense passes on to the consciousness, and experience has there its perpetual record and abiding history.

Within consciousness we shall find, as one state with its three stages, the successive preliminary facts :—

3. *Knowing, feeling, and willing, each primitive in order to the experience of its successor.*

1. The scientific experimentalist has the whole field of common consciousness and his own personal consciousness from whence to derive his new empirical tests ; and any exact experiment made from others' experience, or from his own, will convince him that the content once in consciousness is a conditional incitement to the awakened spontaneity that it take this commingled content, and open its several parts to the light, and thus know it in its separate parts, and the parts in their relations, and so in the end take the whole in its consistent connections. The content that has aroused the mind to consciousness will elicit the mind's further curiosity to hold that content in a thoroughly discriminating, and by that also in a completely harmonizing and uniting point of view.

The power, in general, for all cognition is known as *Capacity* ; the particular powers for distinctive ways of knowing are termed *Faculties* ; and the agency as a mental capability for all knowing is termed the *Intellect*. The Intellect is the mind's agency in knowing. By definitely separating and distinctly comparing and correctly combining or connecting the content which has aroused the mind to consciousness, the mind exercises its

power over it, brings it within its grasp or *apprehension*, does what it *can* with it, and thus *kens* or *knows* it. The tendency is to know, and, once in consciousness, the first step onward in the experience to which the content leads the awakened spontaneity, is that of clear *cognition*.

2. The spontaneity becomes more intense at each step in its ongoing process. What was a mere *inclination* in sensation becomes a positive *tendency* in the consciousness, and has now attained a very decided *urgency* at the completion of cognition. It reveals itself as attracted towards, or repelled from, its more advanced stage ; and this we term a *feeling*, though we need a somewhat careful discrimination in taking this term. We say, in cognition by the touch, that the object *feels* hard or soft, smooth or rough, hot or cold, etc. ; but we do not say this in the cognitions through any other sense-organ. The object *tastes* sweet or sour, *smells* savory or unsavory, *looks* bright or dingy, and *sounds* hoarse or shrill ; and yet, in the first-mentioned case of "feeling" hot or cold, the action is as decidedly in cognition as in either of the other cases. The properties are known in the touch, as in the taste, smell, etc. ; but after the knowing, in all the cases, comes a drawing or repelling, which is specially what we mean by feeling. The degree of heat to the touch, when known, has then the further advance in the spontaneous process, viz., that it is agreeable or disagreeable, desired or avoided ; and in the like manner with the tastes, smells, etc. The craving or shunning will be alike in all the cases after the knowing, and may thus all come under the common term of feeling as an urgency of longing or of loathing, desiring or rejecting. The term feeling thus applied must have the cognition, however attained, as its preliminary, and necessarily the primitive fact for it.

The taking (*capiens*) in the capability for a cognition, becomes here in the feeling a taking under (*sub-capiens*), and the competency for such mental activity is a *Susceptibility*, and will give

forth its feeling according to the conditions of its primitive faculty as induced by its peculiar intellectual agency.

3. This urgency of the craving or aversion is, then, preliminary to, and so the primitive fact for, a third stage in the consciousness. The urgency in the spontaneity here rises to a persistent energy which is able to attain the end which shall satisfy the feeling. The craving or repelling feeling thus passes over to an energetic *Will*, which is an efficient executive, and henceforth becomes the controlling agency in the gratification of the susceptibility. When exercised only in gratification of animal appetites, it is brute-will ; when fulfilling the ends of free spontaneous thinking, it is the scientific will ; and when executing what we have not yet considered, but shall subsequently see to be the imperatives of the reason, it is the spiritual will in liberty. In all cases it must have its appropriate susceptibility for its primitive fact, of which it must itself be the invariable successor. By its ultimate disposing, it puts and fixes in the consciousness the permanent character of the human personality.

The common consciousness may have its unshaken convictions of the order of its experience, but only the exact scientific testing of the common experience anew will give valid authority for this general process of all Empirical Psychology. And such process through the successive steps as given in the above primitive facts establishes the specific method of Empirical Psychology in a manner that is infallible, and must be retained as altogether inviolable. The Method is itself a fact scientifically tested, and thus the order of the trial of psychical experience is as necessary to a correct Psychology as is the validity of the constituent facts themselves. We are, therefore, prepared for a succinct statement of this method.

SECTION III. THE SPECIFIC METHOD.—The one Mind has its capability for varied modes of knowing, and as such it is the INTELLECT ; and under the Intellect it has its varied modes of feeling, and in this it is the SUSCEPTIBILITY ; and in the

susceptibility it has its various modes of executive energy, and in this attainment of the ends of feeling it is WILL.

I. THE INTELLECT.

1. THE SENSE.
2. THE UNDERSTANDING.
3. THE REASON.

II. THE SUSCEPTIBILITY.

1. THE SENTIENT.
2. THE PSYCHICAL.
3. THE RATIONAL.

III. THE WILL.

1. THE EXECUTIVE ENERGY IN THE SENSE.
2. THE EXECUTIVE ENERGY IN THE SOUL.
3. THE EXECUTIVE ENERGY IN THE SPIRIT.
4. THE COMPLETED WILL IN LIBERTY.

IV. THE COMPLETION OF EMPIRICAL PSYCHOLOGY
GIVES AN OPEN DOOR TO A UNIVERSAL PHILOSOPHY.

1. PHYSICAL SCIENCE.
2. PSYCHICAL SCIENCE.
3. RATIONAL SCIENCE.
4. THEISTIC SCIENCE.

FIRST DIVISION.

THE INTELLECT.

THE AGENCY EMPLOYED AND ITS PRECISE POSITION.

SCIENTIFIC experience, as we have defined it, is an undoubted fact. The common experience of man can be at any time, as in unnumbered instances it actually is, tried over again and tested. There is, therefore, in the common experience a capability different from experience. That a function should take note of its own operations, or that experience should speculate upon itself, would be absurd. The trial of a faculty by its use is one thing, while the taking note of the trial, the examination of it, the testing it, is quite another ; and we deceive ourselves with very superficial thinking if we confound these two. There is a capability different from experience, which can examine and test the experience, and which demonstrates its existence by doing this work. This capability, as already noted, is Mind ; and when exercising itself in this way, it is scientific Mind.

The experiment by which the mind tries over again and tests till it accurately knows a fact of experience will, like every act of knowledge, involve the discernment of certain limitations within or into which the fact is set or *laid*, and by which it becomes defined in its parts, and its parts become comparatively distinguished, and all the parts become correctly connected as one whole. The act is thus literally an act of intelligence,—*in, intus, and legere*, to lay within,—and the agency employed therein is properly termed the Intellect.

The scientific Mind, or Intellect as we now contemplate it, has elevated itself above and overlooks the whole field of the common experience, and has the capability to take any facts or all the field together, and try them all over by new experiments. It is a spontaneous agent; it can discriminate itself from its objects, and can make its own acts the objects of its subjective intelligence,— all which facts are as easily proved in actual experiment as is its own existence. It has already found the primitive facts of sensation and consciousness, and that in consciousness the three stages of knowing, feeling, and willing have an invariable order in their succession which determines the specific Method of Empirical Psychology.

We are now carefully to follow this scientific Mind through all its future process of scientific experiment upon common experience, until we find at last its entire capability for testing empirical facts, and by its use may scientifically reach and open the only door which leads from Empirical Science to a Universal Rational Philosophy.

The position we now take, and from which our scientific experiments start, is with the content in consciousness, in which the subject mind has just aroused itself to sufficient wakefulness for the apperception that both subject and object are commingled together in the light of consciousness. We here begin our testing experiments.

CHAPTER I.

THE SENSE.

THE scientific mind is fully aware that its spontaneity does not go out in intelligent action, save as some *occasion* for it falls in the way—*ob* and *cado*, to fall athwart—of the spontaneity. And this intelligent action is the more sure and satisfactorily convincing in proportion as the occasion rises from a fortuitous occurrence to a manifest tendency or propensity in the same direction, and becomes a *condition* for the action, or that which gives itself together with—*con* and *do*, to give together with—the spontaneity. When there is this conspiring activity of object and subject, as if the former solicited and the latter assented, there is not only the certainty of the mind's activity, but a satisfactory conviction that it is active according to the rule of intelligence itself, and therein is attaining valid cognition. As the uniformity approaches universality, the confidence of its truth becomes unquestionable. It is in this way that the fascinating interest in scientific experiment is quite defensible, as originating in the love of truth, and as in itself a search for the truth on its own account.

We shall have abundant opportunity for verifying these considerations in our further process of experimentally testing the old facts of common experience. Empirical Psychology will advance in uniformity towards universality, though no scientific testing by new experiment can ever compass the ultimate and absolute. We shall see how far it may go, and where it must stop and give place to the working of another faculty.

We now proceed by careful experiment to test the process of Knowing in the Sense.

SECTION I. OBJECTIVE CONSTRUCTION.—The special senses are the touch, taste, smell, and those of hearing and seeing. The touch has also been distinguished into contact as in temperature, and muscular pressure as in impenetrability, thus giving six special inlets for the entrance of content into consciousness. Through these special senses have entered all invasions from without that have induced sensation and, by occasion of the presence of the outer object with the inner subject, have awakened the spontaneous mind to consciousness. The entire common experience has possession of its facts only on the condition that for each fact there has been an objective sense-affection arousing the spontaneity to corresponding subjective activity ; but all this, in the common consciousness, has passed by unexamined and unacknowledged, and however strong the conviction that there has been throughout the experience this correspondent connection of subject and object, there is yet to the common mind no capability to verify or explain it. There must be a reconstruction of the facts by trying them over again in scientific experiment before we can have a safe exposition or a sound cognition of human experience. For such trial and testing experiment the scientific mind is abundantly competent, and the way is open for any requisite variety or repetition of new experiments in the securing a certitude so valid that all assumed question or doubt may be reasonably disregarded. Such reconstruction by new experiments is the only safe and sure way to an Empirical Psychology, and this we here commence at the very opening of the senses in consciousness, purposing to carry out the construction to complete sense-cognition.

1. *Attention, on one side, defines.* In simple consciousness, which has not yet risen to self-consciousness, the subject and object are, as we have already noted, indiscriminate, and thus

uncognized. But when the scientific mind has separated itself from its object in the light of self-consciousness, and then seeks by scientific experiment to know how this was done, it is aware that the first requisite in the experiment is to try over again an act of *attention*. In an act of attention — *ad* and *tendo*, to stretch to, or over — the spontaneity stretches itself to and over its object, thereby shutting it completely within its own limits. The object may be of any variety in any sense, as a coldness or hardness in touch, or a redness in sight, but only as this object is thus attentively brooded over by the spontaneous activity, can it be truly known, or made to possess any determinate significance for the intelligent subject. The attention, as we here note it, is completely on one side ; turned *in upon* and not at all *out from* the object, and thus as above in touch or sight, the object is the single coldness or hardness, or the single redness, alone in its isolation. But, though determined thus as a single definite in its own limits, it is yet altogether unqualified aside from its singleness. It can be characterized by no predication, and is solely a *this* in the consciousness. As in the light it is this *here*, as neither coming in nor going out it is a *this now*; but all soon passes away, to be succeeded by other singles, each of which will alike be a *this here and now*. In the same way there might come within consciousness every single fact of common experience, though neither in nor out of consciousness has the single object any relation to another object. The one spontaneity abiding in all can thus be conscious of all, and, as the same subject, can say of all, my object, but this as well for one as for another, and without distinguishing one from another. Such construction in simple definition is termed *Immediate Beholding*. The object in its singleness stands over against the subject *face to face*, without any medium between the two, and with no abiding certainty for itself.

2. *Attention, on both sides, distinguishes.* The touch may find itself between a smoothness and roughness, and with the

attention stretching over either side alone there will be definition simply; but if the attention turn itself over both the smooth and the rough, each will be defined in the consciousness; and though each be single in itself, yet inasmuch as each is an object of the one spontaneous subject, this subject may say of both, they are *my* objects, and may at once distinguish the one from the other, according to the peculiarities of the two in consciousness. The smooth and rough will each be objects in the one sense of touch, and their distinction will be of *variety* only and not of *kind*; but if there be a redness and a yellowness on each side of the spontaneity in the sense of sight, while these will also be distinguished in variety, yet, inasmuch as the senses of touch and sight are in the same spontaneous subject, that subject will distinguish the objects in each sense from those in the other as different also in kind. Thus, in the same way of attention on both sides of the spontaneity, all differences of kind and variety in sense objects may be sorted and classified exactly and completely. Nothing is then left in single isolation, but every defined *this* has its distinctive *that*, each *here* has a *there*, every *now* has a *then*, and all facts in common experience are separated and sorted after their distinctly ascertained differences.

While thus definition is effected by a one-sided attention, it is manifest that distinction can be accomplished only by an agency that broods over both sides of the limitation. The two sides with their differences cannot be brought into the one field of consciousness but by an attending agency that reaches into the light which illuminates both ways from the dividing process. The result of this process is known as a *Perception*. The object immediately beheld in its single definition is perceived only as it is *taken through* — *per* and *capiō*, to take through — the defining and classifying process by which distinction from another object appears.

3. *Attention, stretched over the circuit of the senses, connects.*
We are making connections of objects in our sense-experience

all the while, and the common mind does this without a thought of the process, and, of course, without any attempt to verify it. But now, in our scientific inquiry, let us make a new experiment for testing these connections. Let the occasion be furnished, *e.g.*, by a large crystal of salt. When this is taken under the pressure of muscular touch, the property of a hard impenetrability is at once perceived, and when the pressure has been spread over the entire surface, the cubic form of the crystal will be given in connection with the hardness. If the light falling on the cubic crystal be reflected to the eye in a scientific experiment, there will be the perception of a gray color taking the cubic form and connecting itself with the hard crystal of the touch in exact coincidence. If the hard colored crystal be stricken together with another, and the aerial reverberations reach the ear, there will be perceived the noisy click of the percussion put directly as a property of sound within the colored cubic hardness. If this, again, be seen carried to the tongue, there will further be perceived an acrid taste, and when all is yet further brought to the nose, there will, with the taste, also be a saline odor, and both the acrid taste and the bitter smell will be consciously connected with the formerly perceived properties. The crystal will now be recognized as hard, and cubic, and gray, and acrid, and with a saline smell, and a clicking sound. It has now gone the circuit of the attending senses, and the property of each having been joined respectively to the others, all are now compenetratively connected in the one crystal. All other sense objects in common experience may thus scientifically be connected in their properties, and only thus can any object of sense be made to stand in conscious perception, with all its properties interfused within its one form. When the attention thus connects different properties into one object, it is properly termed *Observation*. Each property is thus held before — *ob* and *servo*, to hold before — the attending subject, till the other properties are joined in connection with it.

When the body touched is changed by adding to or taking from it somewhat, and then invariably on such change in the touch, a certain change also occurs through the other senses on presenting to them the changed object ; this invariable order of successive changes is also noted in sense-observation, and the spontaneity which connects these consequent results is as much conditioned thereby as it is by the uniformity of the interfused qualities. Uniformity in collocation, or in the order of succession, is already the soliciting condition for the corresponding spontaneous action.

It is quite obvious from all this that the sense of touch is a common basis and substantial support for the other senses, and that in the absence of this sense no other sense could be a substitute for it. The found color could not be made to take and keep the other properties of smell, taste, etc. ; and much less could these other properties take and keep the color and the hardness. Unless there be a hard, impenetrable object for the touch, no connection of qualities in sense-observation would be possible.

But, convenient as is the sense of muscular touch for sustaining the properties given by the other senses, it is of much higher import that we perpetually acknowledge the fact that this convenient, hard impenetrability is ever but a property, and not an essential substance. The touch no more gives the ultimate reason for the impenetrability than does the tongue for its taste or the sight for its color. The spontaneous attention can carry itself round the circuit of the senses most readily by the touch, but it can no more go back of the touch and tell how its properties stand on an ultimate substance, than it can reach such an ultimate substance by any other of the senses. We can, in our sense, go no farther back than the simple fact that any two surfaces in contact keep out each other ; while what makes this impenetrability eludes our scrutiny. All single bodies tend towards other bodies, and fall if unsupported, till they find a sus-

taining surface ; and as thus held no scrutiny of sense can find any ultimate support beneath the last surface for the bodies that may rest upon it. All sense-properties are thus, each alike respectively, to be taken as *phenomenon*, and not as *noumenon* or ultimate being. Scientific experiment tries that which is in common experience, but can never carry itself out of experience to test what must have been in order to experience ; but at its best may only bring us to the consciousness of a higher faculty which may legitimately interpret for us the true philosophy.

As in the sense we find no ultimate substance, so in the sense we have conditional cause only, and can never reach to a personal will in liberty. No sense can stand alone in its own free spontaneity, but all alike must have their precedent condition ; and while, with the condition given, the sense originates action of its own accord, it never does this but in accordant co-action with its soliciting condition. Our whole spontaneous attention is in alliance with outside conditions, and must wait upon them and act with them, and can never stand in its own independence and act without, much less against, them.

So, also, the sense can only give us place and period, and never the unlimited Space and the immutable Time. The touch constructs its forms but only finds their places within the reach of its own movement ; the senses of smell and of sound can only quite vaguely apprehend distances and place ; the taste can have place only in the points where its solutions touch the tasting organ ; so that, were the man with only these senses to go round the world, he could carry with himself but a narrow belt of conscious observation in which place could have any recognition. Even when there is added to these senses the sense of vision, which can scan the distant places on the earth and in the heavens, its scope will still have its limit and be place only ; and though within it there may be the place for all the other places of the other senses, and it might stand for these as boundless

space, just as the impenetrability in touch had stood for substance to the other senses, still would this place for all other places be only a larger place which itself could not have been save as the illimitable Space had already been in which itself might also be. Just so all movements and changes in sense-experience have their limits of longer or shorter period, and do not reach the illimitable and the immutable ; yet no periodic successions could have been but as the immutable Time in which they are must have already been. Science can never test the illimitable, the unbegun, and unending ; and yet it can never measure substance or causation, extension or succession, without beginning in the measureless and still continuing in the measureless, without ever attaining the comprehension of an Absolute. It is good within experience, and good for nothing without experience.

The feebleness of the sense is taught us in this, that while the scope of vision takes in the celestial luminaries far beyond the range of touch, we are obliged to suppose that with adequate locomotion we could touch every heavenly body, and yet cognize nothing below their surfaces except in their disintegration ; and that if such disintegration should go on to any minuteness, still every atom would have its surface compelling every sense to remain forever on its outside.

SECTION II. SUBJECTIVE CONSTRUCTION AND PROJECTION.— Objective construction defining, distinguishing, and connecting, may perpetually go on unnoticed and inexplicable in common experience, and this may then be tried over again in scientific experiments, as we have now done, giving to us clear Perception and complete Observation of all sense objects, and then this knowledge may be put to use in the varied interests of practical life, but all this will not exhaust the field of sense-consciousness, nor finish the activity passing on in sense-experience. There is an inner world of subjective construction continually underlying and often projecting itself into the outer life. This inner world

is sometimes clouded with shapes which the attending agency has constructed out of semblances of sensations which itself has simulated. Such constructions are termed *phantasms* or hallucinations. They are most often visual, though often also audible, and sometimes also simulate phenomena of smell and taste. To those by whom they are constructed, and to whom alone they appear, they may have every semblance of reality, and thus stories of spectres and apparitions are sometimes related with great minuteness and with every conviction of their truth on the part of persons who seem to be reciting thus their own experience, while others may have no difficulty in detecting these appearances as illusions. To persons in good health such phantasms never come save in dreams, or immediately before sleep, or at the time of waking and when half awake, while they are common and in some cases constant to persons in a fever, or who suffer from nervous visitation, or from narcotism, insanity, and epilepsy. That they are phantasms and no phenomena of real objects is sometimes recognized even by those who behold them ; but persons of weak culture or confirmed disease are often incapable of any such recognition. These products are often termed the work of *Phantasie*.

But when the attending spontaneity out of impressions and affections which lie vague and half finished in the consciousness forms pictures for itself, to which it attaches no objective significance, these fictitious forms, capriciously or *fantastically* constructed, are properly termed the work of the *Fancy*. It is the construction of immature perception and incomplete observation into more or less incongruous objects, and then projecting these in fictitious scenes amid the realities of our common experience.

“ When nature rests,
Oft in her absence, mimic *fancy* wakes
To imitate her, but, misjoining shapes,
Wild work produces oft.”

Of this work of the fancy we may say :

1. That it conforms to the invariable law of sense-construction in that it must first find its sufficient occasion. The spontaneous attention will no more stretch itself over and define its objects, in fancies than in realities, without its appropriate conditions. Spontaneity is not self-action independent of conditions, but in fancy these conditions are more or less unfinished objects, and thus are but partial perceptions, and can be constructed only into fictions of seeming reality.

2. The subjective construction of the fancy is always modified by the idiosyncracy of its author. Shakespeare's witch scene in "Macbeth" and Burns' "Tam O'Shanter" are both pure works of fancy, each unlike the other, and also unlike any other, both in their construction and scenic projection, and neither could have been the production of another mind than that which had the modifications of the veritable author.

3. Scientific cultivation modifies and mostly excludes the fancy. Children live largely in fancy, and their daily acts and sports are in a great degree projections from their fictitious constructions. The savage is also prone to fancy, illustrations of which abound in his supposed causes and cures of diseases, war-songs and dances, and superstitious fictions concerning the dead, and the world and its employments where the dead have gone. The common mind becomes less fanciful in proportion as it is scientifically cultivated. As perception and observation are made more complete, the convictions of reality shut out the illusions of fancy. And yet in the most cultivated modern communities the sway of fancy in fashion, in dress, equipage, manners and customs, is everywhere prevalent.

4. The most cultivated fancy is still only of the sense, and must with the sense pass into the sphere of the reflective understanding before it can reach the elevation which thought gives to the productive imagination. Fancy can apply none of the logical connections, much less the compass of reason to its con-

structions, and can only please the sense without responsive thought and especially without authority from any moral imperative. It must itself be conditioned by thought and reason before its fairest phantoms may be allowed to guide the life or satisfy the hope of human experience.

Scientific experiment may determine thus much of the constructions and projections of fancy, but the experience of fancy, as well as that of scientific perception and observation, here passes out of the sense, and if it shall be thoroughly scrutinized, must be taken up as henceforth standing in the higher sphere of thought and reflection.

CHAPTER II.

THE UNDERSTANDING.

SECTION I. (1) *Its meaning and change of attitude as a Faculty.* The phenomena of the sense come and go, but after they have vanished something remains. The essential reality of these vanished phenomena has passed into the *Memory*, where it is held unconsciously until it is brought up again in conscious re-recognition. As the object cognized in sense is the content in the bodily organ, the object thus re-cognized is—if we may take a word not often used, but exactly expressive—the *retent* in the mind, or that which is retained in the mental capacity after what was contained in the bodily organ has disappeared. The content was known as a face-to-face presentation; the *retent* is turned back to view as a representation; the properties of things which we observed as collections in the sense, we now know through a process of re-collection; what had passed into the mind's retention as *memorials* of scenes which, having been directly present, had passed out of consciousness, is now, when

recalled and represented, conscious *Remembrance*; what were sense-*relations* come now to view as thought-*associations*. We may sum up in a word these differences between the two processes by saying that the one is a knowledge wholly direct and the other a knowledge wholly reflective. The retent, when known, stands before us as if reflected and inverted in a mirror, the nearest events in the past being in this way the nearest as actually remembered.

All this will be familiar when, by a testing experiment, we remember the transactions in the sense of the preceding day. They go past, and drop out of the senses and are retained in memory as having gone by, and are then called up again in full remembrance, standing out before us in the connection in which they came to our sense-observation, only here they are inverted; the first that came in to the sense-experience being now the farthest from us, as in our reflex contemplation of them we remember them in orderly succession. The successive events of the day came in and passed along by in order, and retreated more and more from us in the past, till we took them, as a reflex in a mirror, and re-membered them before us again, with the first events furthest off, and the last transactions of the day nearest to us. And just thus will it be if we call from past memory into present remembrance the connected events of the day before, they will all be an inverted reflex, standing back of the events of the last day; the first events stretching the farthest back, and the next in order nearest to us; and so would the entire experience of our lives be inverted before us, if we could exactly remember its events in the order of their sense-observation. The retent in the remembered consciousness would back out with faces towards us, in the inverse of that by which the sense-content had marched into our presence. We observe and remember in like succession, but in inverted order. All this any one can verify by his own experiments, which he can repeat at any time he pleases.

Mere memory is not knowledge, but only such a retention of former things known that they may again be called up and made objects of study. Without memory, the mind would be incapable of thought or of science. Our past experience would be a blank, and not only would all knowledge be limited to the field of the present moment, but all plans and calculations respecting the future would be impossible.

While nothing is retained in the memory which has not been originally received through the sense-experience, there are certain facts which render it probable that no mind ever actually loses anything which has been thus received. Persons resuscitated from drowning or hanging have reported a sudden revelation of all their past life flashing out with distinctness and minuteness just before their consciousness was lost. The present writer is himself acquainted with an army officer who has had two distinct experiences of this sort,—once in early life when near drowning, and once in a sudden exigency in a battle. Pointing in the same direction are the numerous facts cited where persons in extreme sickness and under operations for injuries of the head have conversed in languages which they had known in youth, but had for many years seemed to have entirely forgotten. Persons also in the delirium of a fever have repeated with apparent accuracy discourses to which they had listened many years previously, and of which, before the fever, they had no recollection. More remarkable cases still are reported where persons in certain abnormal states have accurately repeated long passages from foreign tongues which they had casually heard recited long before, but whose meaning they never knew. Whatever may be thought about arts of remembering, there would seem to be no art of forgetting.

That which thus holds in remembrance all content of sense-observation, and abidingly *stands under* the sense-constructions, holding these in reflective order for deliberate contemplation, is quite appropriately termed THE UNDERSTANDING.

2. *The field of consciousness in the Understanding.* Though each organ of sense has its own attending activity, and thus its own range — broader or narrower — of conscious construction, the organ of sight takes in the range of all the rest. Whatever object can be touched, heard, tasted, or smelled, the eye can see. As it can thus take within its scope the places and periods of all shaped objects on earth or in the heavens, it thus follows that within the inner capacity of the eye is found a field of consciousness for the whole common experience of humanity. And now an adequate testing experiment will unquestionably evince that, on going from the sense, it is this field of consciousness with its past objects which is retained in memory; and then, again, that it is the reflex of this retent which is re-membered as the internal of the understanding, with all its places and periods exactly conformed to the constructions made in the sense, except that as remembered in the understanding their order is inverted. The field of consciousness in the understanding is, therefore, precisely the field of consciousness in sense-observation reflectively inverted. To the conscious understanding, thus, this inverted field of sense-observation is directly before it for its contemplation and higher cognitions.

For these higher cognitions nothing more is needed from the attending agency in the senses. Its work has been already completed in the sense-content and its constructions. The retent of these is not now to be "defined," "distinguished," and "connected," but becomes solely the object for *reflective thinking*. Thus thought may *recollect* the past, and make its *deductions* from the *data* thence scientifically attained.

3. *Cognitions from individual recollections.* — Any individual may so have the retent of past experience reflected in remembrance upon the field of his internal consciousness, that he can at once bring up some object or event which he holds distinct and prominent in his thought. Such would be a spontaneous act of conscious *Re-collection*. The man who has it may him-

self be so sure of the verity and reality of the occurrences which he thus recollects, that he will not need to be very solicitous about the exact place or period of their actual existence, or their compatibility with surrounding conditions ; he knows they have been in his conscious experience, and are now in his conscious recollection, and thus that they must comport with places, periods, and circumstances that have any relationship to them. He may be very ready to qualify himself under oath, and testify to them under the responsibility of the pains and penalties of perjury, that they are the truth, the whole truth, and nothing but the truth, so far as he knows anything about them.

Yet this individual strength of conviction could not be so satisfactory for other individuals ; the events must for them be made to stand exactly coincident with place, period, and circumstance, and so confirmed by two or three other competent witnesses that the evidences of their reality shall be made unquestionable, and when this is done all interested individuals may be ready to take the life of some capital offender on the undoubted credit of ample testimony.

But this certainty of individuals, however adequate for all purposes of the case in hand, could have little authority in the scientific testing, sorting, and classifying the facts of common experience. Individual recollection individually tested can never reach the claims of science when trying over again the facts of common experience. Individual testimony can reach but few of any generation, and generations themselves soon cease to recollect or be recollected, while common experience must be tested for all individuals of a generation, and for all generations. Only for comparatively a very few facts of universal application, like the ordinances of day and night, the changing seasons, and planetary revolutions, are the facts individually attested so prominent and permanent that they force conviction of their reality upon all men of all ages. In some adequate way the collocations of all objects in all generations.

must be known to be so uniform, and the succession of events so unvarying in their universal order, as to force the conviction of their verity upon the reflecting and thinking minds of all the centuries.

4. *Cognitions in common from abstract recollections.* If we make a careful trial, we shall see that oftentimes among the individual re-collections, as just above given, some objects will have like properties in all, and some unlike in each ; and that we can make another peculiar re-collection, in which we have *drawn off* the properties in common from those that differ in particular, and have thus attained a truly *abstract* re-collection. Of ten apples in recollection to-day, that a man may be willing to testify under oath are the reflex remembrances of ten apples actually observed in a certain place and period yesterday, he may now abstract what is in common for all from what is peculiar to each, and these common properties will not only be as real as the proper ones that have been left out, but, taken together, the common will be a valid voucher for the proper ten apples yesterday actually observed. And still farther, a scientific experiment will test that there are these common properties in all apples of common experience, no matter how variedly particular apples may differ ; and then we have not the voucher for ten real apples merely, but for all real apples of all ages. The same is true for the successive changes in the growth of the apple ; the changes are in common for all, and diverse in each. The tree bears the apple, and the apple grows successively from the blossom to maturity, and separates from its stem and goes on to be a tree again ; and we gather these changes in common as we do the common properties in our abstract re-collections, both processes being equally valid and each going far beyond what any individual testimony can reach.

We have here, then, a wide field for empirical science. Every observed object that has passed into the retent of memory, and been recollected in the field of the understanding conscious-

ness, has its like and unlike properties with others of its fellows, and so all objects in common experience may be held in classified relations through their common recollections. Such abstract recollections are known as *Conceptions*, i.e., the products attained by *taking together* and holding in unity what is common in similar particularities. The common properties cannot be put in single objects, or the common changes in a single series; but in their common conception they are as valid realities as when they stood in their observed collocations or ordered successions. They abide the tests of scientific experiment as surely in their re-collection as in their primitive observation. We may thus take these abstract conceptions and work them into understanding cognitions as readily and as validly as we have worked the content in sensation into definite and distinct perceptions and connected observations. The retent with which the understanding deals is only the inverted reflex of the original sense-content.

And now all this can be clearly apprehended only by carefully avoiding the delusion which comes from giving to the *real* the meaning of the *same*. The understanding cannot have self-sameness, but only the reflex of former observation. The self-same particulars in their differences have gone out of observation, and into the past, and they can never come back into the present, except as recollected in the understanding consciousness, and when thus re-collected they are obviously not the self-same particulars in their differences, nor even as they actually were in the self-same place and period. All that the understanding can do in gaining *the same* is to re-collect *the real* from some sure repository. Thus the four Evangelists have given each his own particulars of the scene of the crucifixion, but the only way in which we can now re-collect the real persons and transactions in this scene is by a conception which leaves out the individual differences in which Jesus or Judas or Herod or the High Priest, or the events of the Sanhedrim, or the denial of Peter might be

regarded by us or by others, and which takes in only what is common to us and to all men. The common is indeed the only real for all, while the self-same differences among particulars are gone by forever. The one reflex of the real as given in the abstract conception of the common properties and changes of the scene is the only *same* crucifixion the world can ever again re-recognize. The common is for the reflex thinking of the world the only real and the only same crucifixion of the world's only Saviour ; and so alike for every event in history, sacred or profane. These real properties in common make the only condition which may invite and guide the spontaneous understanding to any work of re-collecting past realities.

SECTION II. OUTLINES OF EMPIRICAL LOGIC.—This faculty of the understanding, by the conceptions which it thus re-collects, opens the door for the further process of scientifically testing the common experience in thinking, and so attains an entrance into the entire department of *Empirical Logic*. It is entirely practicable to trace thoroughly the work of the understanding in this department, but to do so will require very close attention.

Logic has been called the science of thought, but is, more exactly, an exposition of the process of thought. Thought is the *subjecting* of one conception to, or the *shutting* of one conception *within*, another ; and Logic points out the way by which this is done. We are now to follow this way, and by careful experiment make scientific test of its value.

A conception is the taking together of the *properties in common of similar particulars*; and as thus far we have been all along dealing with the outer that invades the senses, and the inner that receives and constructs the outer,—which two have been made to stand to us as object and subject,—so all our conceptions, which we are now to try over again, will be of one or the other of these. This will give to our Logic two divisions, the one of which will relate to the outer matter, and the other to the inner spontaneous mover, or to Matter as mechanical

forces, and to Life as conditioned spontaneities. In this we have the two grand divisions in physical science, of the inorganic or mineral kingdom on the one hand, and on the other the organic kingdom, with its sub-realms of the vegetable and animal species and genera. We shall thus need to consider :—

I. THE LOGIC OF THE MECHANICAL FORCES.

II. THE LOGIC OF LIVING SPONTANEITIES.

Our conceptions of mechanical forces will also be twofold, as we take together the similar properties as found in fixed collations, or those re-collected in changing successions. This will give to our Logic of the Mechanical Forces two parts : (1) The Logic of Permanent Conceptions ; (2) The Logic of Changing Conceptions.

There are thus three quite distinct modes of conceiving and thinking, all of which must be distinctly considered if we would exhaust all the capabilities of the human understanding. We shall at the outset of each mode need to note the conceptions themselves as they are distinguished from each other, and then see how these distinctive conceptions are made the basis for their logical system. We shall make the statements of these distinctions as concisely as we can, attempting to give only what the common properties in fact are, leaving altogether to a later Philosophy the exposition of how they must be.

I. LOGIC OF MECHANICAL FORCE.—FIRST PART: LOGIC OF PERMANENT CONCEPTIONS.

i. *The Properties in common of Matter as abstractly conceived.*—We will give these simply as scientific experiments find them, and in what may be considered as their natural order of re-collection. They will show us the only scientific conceptions we have of matter.

Gravity: All matter has its pull inwards to the centre from indefinite distances beyond the surface of its own body ; and thus all material bodies tend towards each other.

Levity: Heat or light pushes outward indefinitely from a cen-

tre, and thus tends to lift and lighten the pressure of gravity and send material bodies apart from each other. It is the exact antithesis of gravity. Heat is in all material bodies ; the coldest congelation and the hardest crystallization having perhaps, in their solidifying, retained a portion of the heat which was in the fluid body at the point where liquefaction ceased and solidity began. That heat yet remains in sufficient force to induce vapor, even when the congelation has fallen quite below zero. All increase of heat in material bodies elevates and expands their matter, and so all material bodies have both their gravity and levity.

Motion : An excess of either gravity or levity in one above the other, induces motion in the direction in which the excess is working.

Inertia : Motion in an unresisting medium is incessant and uniform if unmolested ; and when by any interference the excess is balanced, the motion ceases, and the body, equally resisted and resisting, is at rest. Matter neither originates nor modifies its own motion ; and its inability to do this is called its Inertia.

Magnetism : Scientific experiment has learned to form an artificial magnet. It takes a mass of soft iron of convenient shape for its use, and winds a coil of metallic wire around its mid-plane, and then continues the circuits on each side of the mid-plane in contrary directions each from each outwards to the extremities of the soft-iron body, thus making the whole coil to be an opposite-handed helix on the surface of the iron mass. This indicates how the phenomenal push and pull of the induced magnet will be when an electric current shall have been passed through the helical circuit. The uniform facts are, that the soft-iron magnet pushes each way from its neutral mid-plane with increasing intensity up to its polar extremities, thus distinguishing the polar extremities by their contrary approaches, as austral and boreal. And then the further uniform facts are, that like poles set over against each other push themselves apart, and

unlike poles pull themselves together ; and these uniform facts of push and pull are laws of magnetic polarity. The neutral mid-point and its opposite poles, in a natural magnet, constitute the one magnetic body ; but if that body be broken in parts, each fragment will be at once a complete magnet.

Electricity : Careful experiment has found that certain material bodies of distinctive substances, as resinous and vitreous, when rubbed together at their surfaces, excite in each a capability of driving and drawing in opposite directions one from the other, which is known as Electricity. In reference to the Earth as a natural magnet, the vitreous will tend toward the boreal pole, and will be *positive*, while the resinous will tend toward the austral and check a return from the boreal pole, and will thus be *negative* ; and the two kinds of electricity will ever manifest their distinctive phenomena from whatever substances the surface-friction may attain the driving and drawing, or repelling and attracting.

If, then, the electric current be applied to the helical circuits about the soft-iron mass, as in the arrangement for an artificial magnet, the positive will take its side from the mid-plane and make a boreal hemisphere, and the negative its opposite side and contrary direction and make an austral hemisphere with its contrary current. The soft-iron mass, having no *coercive force*, will manifest its polarities only as the electric induction is present, and this will come and go with the tension and explosion of the electric charges ; and therefore an electrical artificial magnet can have little practical utility, but in this way the specific phenomena of magnetic and electric activity and their mutual relations of polarity are fully disclosed. The facts are uniform and their successions invariable, and science has in this its law, though it cannot go behind the facts and get their adequate causality or sufficient reason.

Galvanism : Here, again, careful experiment gets the manifestation of peculiar polarities. Alternate plates of copper and

zinc placed in a solvent medium give out distinctive polar tendencies on opposite sides and in contrary directions, and from the continuous solution the polar tension is uninterrupted through long periods. Their polarities accord with those of magnetism and electricity, and the galvanic current sent into the helical circuit about the soft-iron mass makes an abiding induction of magnetic phenomena. The artificial magnet is, during the induction, practically to all intents as a natural magnet ; and while galvanism thus best subserves the ends of utility in many ways, it also opens to scientific experiment a direct connection of magnetism with chemism.

The Chemical Process : Galvanism connects magnetism with chemism and very considerably enlarges the connecting circuit. The alternate plates of copper and zinc in a solvent medium induce the magnetic polarities, which in their oxydation and oxygenation give the gases which become the acids and alkalies which combine at length in a natural salt. This, by a farther process of decomposing and recombining through the action of natural affinities, passes on till it finally rests in quite a different state of combination from that in which the process was commenced through the action of the solvent with the metallic plates. Such is the chemical process. It is not a circuit which comes round at the end again to its beginning, but the end is quite other than the beginning. The chemical process cannot reproduce itself, and cannot be revived and continued but by beginning anew with the galvanic polarities. It just reaches the limit of vitality, but never goes over in digestion and assimilation to a continual process of assimilation and reproducing.

The Understanding, with all its experiments, gets and works with the reflex facts from sense alone, and thus deductively only, and can never get before the experience and tell whence and why these empirical facts have thus come into human consciousness.

2. *The valid reality of these abstract conceptions.* These conceptions have no more and no less reality than belongs to

the original sense-observation. The conceptions are but the reflex of what has been observed in the sense. In sense-construction we have already seen that everything depends upon the touch. What we see, hear, taste, or smell, we apprehend only as connected with something which can be handled. Though our sight extends far beyond our actual touch, and is the most comprehensive of all our senses, what we see is taken by us as if it could be touched ; and when the most distant star becomes an object of our vision, it is visible only as what, if opportunity were given, would furnish resistance to touch. All our abstract conceptions thus being taken from sense-observations which rest upon the touch, it is the properties of the touch which give stability to the thinnest as truly as to the most solid of sensible objects, and which make a rainbow or a perfume as real as a mountain or a continent. What we touch we put, in our sense-constructions, under the colors we see and the odors we smell, although the hard surfaces of the touch are just as phenomenal as the rainbow colors and perfume smells. These hardnesses, these muscular resistances, are our most satisfactory vouchers for the real in the sense and the reflex of the real in the understanding ; and it is these which have been re-collected and taken together as constituting the common conceptions of the matters which lie at the basis of our terrene experience.

And these abstract conceptions may be carried to much thinner abstractions and still retain their unweakened hold on substantial reality. When like properties of different individuals are taken together, the conception is that of a real *species*. But the several like species have also as well their common properties held really in veritable observation and reflex recollection, and these as generic for the species are as valid realities for the *genus*, as the common properties of the individuals had been for the species. This may well go on through higher abstractions to the last generic film that superficially covers and encloses all shall be abstracted ; but even that shred will still be the real *extent* for

which alone all and only the excluded realities can be made the *content*. The thinnest real abstraction is still the real possessor and voucher for all subordinate realities.

It is just on this certitude that we have the distinctive terms for abstract conceptions. The conception, more or less abstract, which is the reflex recollection of an actual past observation, is made at once identical with the observed reality, and is known as an *Identical conception*. The properties it holds in common stand the *same* in the thought as they did in the sense-observation. The conception which should be found not thus standing in the thought as in the sense, is a *Contradictory conception*. The conception which has any property in opposition to such observed reality, is a *Contrary conception*. And the conception, which in any way varies from the observed reality, is a *Different conception*. Identity is allowed only to substantial scientific reality.

And now these abstract but real conceptions establish and give authority to the five following logical *Laws of Thought*.

1. THE LAW OF IDENTITY : *That all Affirmation rest on the scientific test, that what is affirmed of the conception be the same in the reflection as that which has passed out from observation.*
2. THE LAW OF CONTRADICTION : *That all Negation squarely contradicts the allegation made in the affirmation.*
3. THE LAW OF THE EXCLUDED MIDDLE : *That there be allowed no mid reality between the Identical and the Contradictory.*
4. THE LAW OF ADEQUATE GROUND : *That all logical deduction and conclusion be sustained by a sufficient datum from a tried Experience.* This Ground is either the testing Experiment itself, or its direct consequence.
5. THE LAW OF THE INDETERMINATE : *That an affirmation or contradiction of a contrary conception be not taken as an ultimate certainty.*

All conceptions of difference between particulars were disre-

garded in the first taking together, and of course may be passed over in all subsequent use of the conception. All unsettled disagreements between Affirmations and Negations must be referred to a further more careful and thorough experiment, and meantime the point in controversy must be held to be as yet Indeterminate. All logical questions may thus be set at rest for the present, if not finally.

3. Judgment, and valid reality of the Categories. When any one of the properties which are taken together in any one of these permanent conceptions is separated from the rest, and is then subjected to the conception, there is a judgment. A judgment expressed in words is a proposition. In the proposition the conception is the subject, the property subjected thereto is the predicate, and the connecting verb is the copula. Judgments thus made are of four kinds, with each its three varieties, making thus, in the mode of Logic we are now considering, twelve possible judgments, with twelve possible predicates or *categories*. These are as follows : —

QUALITY.	QUANTITY.	RELATION.	MODE.
Affirmative.	Manifold.	Categorical.	Possible.
Negative.	Particular.	Hypothetical.	Probable.
Determinate.	Conjoint.	Disjunctive.	Infallible.

The Quality shows wherein the property qualifies the conception, and the three varieties show the certitude of its realization. The Quantity shows the amount of qualification, and the varieties show the relative clearness and completeness of the adjudged qualification. The Relation explains the kind of connection the conception bears to its properties, and the varieties specify the intimacy of the relation. The Mode exposes the intrinsic value of the Judgment, and the varieties give the progressive grades in their sterling worth.

We here go through a short though sufficient statement of each Category for all purposes of direction in trying over

common experience by careful consideration of appropriate examples.

QUALITY. The reality of qualification which the alleged property gives to the conception, and the manner of its expression in the formal varieties, may have its fair illustration in following out, as a given example, the judgment that "Heat expands all bodies." This, when put in the first variety as a positive affirmation, may readily be met in the second variety by a square contradiction, since it may be averred that congelation and crystallization expand in becoming colder. But to this the affirmative may reply, that additional heat went into the fluid at the point of liquefaction, and has since been fixed in it as the "latent heat of fusion"; that at precisely the point of solidifying, this heat escapes with an elastic spring, which shoots out the crystal spicules, as in the snow-flake and on the wet window-pane; that these spicules in congelation, like the leaves in crystallization, make up the body not in full solidity, but with porous interstices, giving translucency to the mass, and leaving it floating on the as yet unchanged fluid; in a word, the cooling has condensed the needles and the crystal leaves, but the heat has sent them out with its partitions of ethereal levity. If full scientific experiment test this as uniform fact, then may we change the second formal variety to a negation of the negative, and not a contradiction. Just as, with the consent of all, we might at first have said in the affirmative, "Heat expands all metals," and then made the negation to be: "Heat does not *not*-expand all metals"; so now we may as well affirmatively say, "Heat expands all bodies," and negatively, "Heat does not *not*-expand all bodies." It is the double negative equal to an affirmative; as when, having illusively said to the tyro in logic, "It rains or it does not rain; it does not rain, therefore it rains,"—we then put the formal negative correctly, "It does not not-rain; therefore it rains." So, as in all cases of tried identity, we here put the correct formula:—

Affirmative : Heat expands all bodies ;

Negative : Heat does not *not*-expand any body ;

Determinate : Heat is everywhere expansive.

QUANTITY. The example may here be taken in the very instance we have been testing, in the properties in common found in the material world, and we say : —

Manifold : The material world has manifold qualities ;

Particular : The material world has Gravity, Levity, Inertia, etc., etc. ;

Conjunct : The material world has all its qualities conjoined in identity with itself.

The first variety, though true, is too confused and miscellaneous to be satisfactory. The second variety, also true and truly sorted in its particulars of Matter, Heat or Light, Magnetism, etc., is yet too diffuse and distractive in its severality to make a satisfactory judgment. While the third variety gathers all properties in common, conjunct with the conception itself, and thus nullifies all severality in complete identity, and satisfies thus the recollecting activity as having nothing further to accomplish.

RELATION. The first variety, just as in the first category of Quality, takes each property in common as affirmatively related to the conception, negating any other relation, and so determining the relationship of subject and predicate for each. The second variety finds and tests the uniform condition, and thus the true relation, through the tried experience. The third variety takes the identical and the contradictory together, and affirms that, while there can be no middle third, there must be the one relation through the one real condition.

MODE. The following may be taken as a full illustration : —

Possible : It is possible this man may die on the longest day of the year.

Probable : It is probable he will die on some other day in the year.

Infallible : If he die on the day of the summer solstice, it will be on the longest day of the year.

The categories, as thus expounded, give their value and validity to all Judgments, and then these Judgments pass over into *Syllogisms*.

A syllogism is the universal form or process of drawing conclusions. As the conception is identical with all its properties in common, it follows that, in their relations, what is true of all is also true of each particular. On this common basis arises the formal arrangement of the syllogism. The Judgment, more or less general, is put in formal statement, and is known as the *Major Premise* of the syllogism. Then follows the statement that some particular is included in the general judgment, which is known as the *Minor Premise*. Then follows a formal deduction that the predicate of the Major belongs also to the particular in the Minor Premise, which is the last proposition of the syllogism, and is known as the *Conclusion*. Since abstract conceptions grow in *extent* as they diminish in their *content*, it follows that the thinner the abstraction so much broader is the generalization ; and thus the syllogism is comprehensive in its conclusion according to the abstract generality of its first premise.

The first relation in a Judgment is the *Categorical*, wherein any one of the particulars taken together in a conception is directly predicated of the conception itself. A syllogism of this relation would have the following formal arrangement : —

First Premise : All matter is moveable ;

Second Premise : This body is matter ;

Conclusion : This body is moveable.

The next relation is the *Hypothetical*, wherein the particular can only be predicated of the conception through the medium of a condition, and so stands on the ground that the condition is really given in scientific experiment. Till this hypothesis be settled no affirmation as first premise can be made. The fol-

lowing would be the formal arrangement of a syllogism of this relation : —

Matter moves on condition of unequal libration ;

This body has unequal libration ;

Therefore, this body moves.

The third relation is the *Disjunctive*, wherein between two particulars no medium of reconciliation is possible, and one or the other must be predicated of the conception. The form of a syllogism of this relation is as follows : —

Matter rests or moves according as it is equilibrate or is not equilibrate ;

This body is not equilibrate ;

Therefore, it moves ;

or,

This body is equilibrate ;

Therefore, it rests.

Here we may close up the outline of the *First Part* of the Logic of Mechanical Force. It rests on tried experience, and thus stops wholly within experience. It is solely deductive, and must find its first premise in a tested fact of experience standing in uniform collocation and order with all experience, and then all deduction logically from such fact is as valid as human experience itself. But for the test of experience itself it has no capability. There is an assumed Inductive Logic ; viz., an induction of conspiring facts, so many and so carefully tested that they may safely be taken as sufficiently broad and clear to say that in them we have found the order of all experience ; from them we may conclude whatever must have been and must hereafter be the unbroken order of the collocation of all things and inception of all events. But with such assumption of universality, even this is no proper Inductive Science. It is, bating the assumption of universality, the very logic we have been following ; viz., the trying over of the old common experience by new scientific experiments ; but we do not thus get beyond empirical fact, and

cannot induce any adequate cause or sufficient reason antecedent to and in order that the fact should so have been. We at most know what experience gives us ; but we cannot extort from experience what it is that has given experience to us.

SECOND PART : THE LOGIC OF CHANGING CONCEPTIONS.—The Logic of Permanent Conceptions is an iron frame taking in and holding all its judgments in perpetuated immutability. The Law of the Excluded Middle shuts out all intercommunication between the same and different, and the one cannot transfuse itself into or through the other. A shrub is not a tree, nor a green apple a ripe one ; and the logic of Permanent conceptions could not allow either one of these to pass into the other. And yet in actual experience there are continual mutations, and prominent conceptions are frequently passing away and others of very different properties rise up in their place. A shrub becomes a tree, a child a man, etc. These mutable conceptions are as invariable in their order of succession as the permanent conceptions are in their uniformity of collocations, and they are ruled by as authoritative logical laws as those which keep permanent the former ; and their categories are held in consistency by a logical sway as legitimate as those in the previous system. The test of scientific experiments is as readily and certainly applicable in this latter system as in the one just now outlined ; and we may make an outline of this as concise, and still as clear and convincing, as we trust has been done in that, though requiring a considerably modified course of reflective recollections. It is to be noted as one of the prominent peculiarities of these changing conceptions, that while they permit themselves to pass into each other, and even solicitously seek the introduction, yet is the entire inter-communion and inter-change one of constant conflict and unrelenting antagonism. They mutually invite and yet persistently repel each other's advances.

The attitude we now assume to the field of the understanding consciousness, is that which has the remembered plan of past ex-

perience in place and period in full reflection to our view, so that we may see how the process of actual changes has successively gone on. We do not now, as in the previous logic, abstract the common from the different, and thus make a more general conception ; but, as we shall see, we retain the concrete through all the changes, and then determine for it all its possible relations. This mode goes through the categories of the Hegelian Logic, but gets the changes in the process as tested in reality by scientific experiment, and not as left in empty ideal phases.

The prime mechanical existences are matter and light, the qualities of which are respectively gravity and levity, either of which might be taken as the starting-point in our logical process ; but as levity pushes outward, and is thus the prime invader, we make that an assumed first quality in the logical movement. As qualifying vision, levity is light ; but as qualifying touch, levity is heat ; and it is with only these two senses that the quality of levity can have any direct concern, since neither as light nor as heat, can either taste, smell, or hearing be at all modified by it. As invading the organ of sight, it qualifies the color ; and as invading the organ of touch, it qualifies the temperature ; but in both alike the action is a direct movement outward from a common mid-point. We now *recollect* this from our common experience, and take it as heat in the sense of touch, with the adequate test of its reality by ample scientific experiment, and hold it as opening to the determination of the first logical category : —

QUALITY. This real heat, as here *recollected* from past experience, is yet taken singly in its own isolation, and stands alone by and for itself, and its conception as quality is that which all scientific experiment will confirm as valid ; viz., that wherever found in any experience, it radiates out from a mid-point direct on all sides. In its own nature, thus, in every empirical condition amid material gravities, it must find that its expulses are free to move in accordance with the gravitating impulses, and

are checked when running counter to these. It must therefore be stopped and limited by surrounding gravities. The heat we abstract in conception from common experience, and when thus made to stand in isolation for itself, it will, in the whole reflex of the understanding consciousness, be repeatedly checked and limited in its expulses by outlying gravities, and thus it stands no longer *per se*, but must needs become also a modifying quality for others. No heat quality in common experience will push outward alone, but will be repeatedly put in limitation by others. This scientific law for heat makes itself pass perpetually from the category of single Quality, and become in its own movement a resident in the higher category of

QUANTITY. Quantity when limited is a *quantum*, and these *quanta* may be of any number. When the quantity passes over its own border to a further limit, it becomes an *extensive* quantum, the quantum, beginning *at* the border and stopping *at* the limit, thus standing between the limits as an extensive quantity. But quantity may pass its limit and enter another extensive quantum,—as heat passes its border through the limit and within the area of another quantum,—and such invasion of another quantum is an *intensive* quantity. Such intensive quantity diffusing itself through the area is reckoned by *degrees* as so much intensity; and these limits by degrees are themselves all included in their numbers, the count including all the degrees as they augment the intensive quantum. The intensive quantum is *specific* inasmuch as it modifies and characterizes the entire extensive quantum it invades.

The intensive quantum, modifying the *extensive* proportional to its degree of intensity, takes back again its old standing in the category of Quality, and has a *qualifying ratio* as its intensity increases within the extensive quantum. Thus, a quantum of heat invades a material body, qualifying the body as its intensity augments, up to the point of liquefaction, which though differing in different material substances, is yet a specific degree

respectively for each substance. Thus, the limit between congelation and liquefaction in water is at 32° Fahr. above 0; while for mercury it is at 40° below 0. This qualitative point as limit between solidity and liquidity brings us to another category known as

MEASURE. Measure is the limit between the old conception, which has been continually changing, and the new conception about to be introduced, which, in the example now contemplated, is the conception of congelation and fluidity. In approaching the limit, the changes are gradual and imperceptible up to the measure, and beyond the measure the fluidity gradually becomes complete; but on and in the limit the turn is made, on one side of which is congelation, and on the other fluidity, as the changing process goes on by the incoming heat, till the entire quantum has passed from the former to the latter state. Scientific experiment finds that a given degree of heat, known as latent "heat of fusion," has been fixed in the liquid, thereby perpetuating its fluidity. And the still further application of more heat to this dissolved congelation, now water, makes new changes to pass on in it gradually towards a further measure for the water, as before for the ice; and then on and in this new measure the water changes to vapor, with its fixed degree of heat to keep up its volatility, known as the latent "heat of vapor." In either the state of vapor or water the heat may be withdrawn and the changes then flow backward through the same measures reversed. Most mineral solids have their measure on and in which they become fluid, and other matters have their changes carrying them out of their old into new conceptions,—like the pressed grape whose juices in fermentation pass their successive saccharine, vinous, and acetous stages, and which do not admit of a reverse process. So, also, the chemical process passes its changing stages of acids and alkalies into neutral salt composition, which then becomes changed in decomposition by elective affinities wherein the circuit closes.

All these processes of mechanical changes into other conceptions over their measures may be tested by accurate scientific experiments ; and while each has its order of succession, they all without exception soon come to their ultimate conversion, and never are found to enter upon a continually living assimilation and generating reproduction. But with all these conversions of conceptions over the measures, there is ever the transmission of somewhat through the measures, that abides in all changes, and with this abiding somewhat the process passes to the category of

ESSENCE. Essence is the concrete basis of any material body made up by the combination of its ultimate elements. It is found only by careful scientific experiment. Thus, in our example of congelation and fluidity, the basis of water is found in its constituent elements of oxygen and hydrogen, which, when deprived of its latent "heat of fusion," stands back of its measure as congelation, with these ultimate elements the more purely crystallized as the heat is withdrawn. In all cases the one basis continues through all changes and all measures. The ultimate elements are neutralized in their combination, and thus pass from sense-observation and can be recognized only as thought in the understanding ; and thus this category of essence is purely a matter for the understanding-consciousness, where in reflection it can be traced through all its inner Relations to its phenomenal exhibitions. This brings us to the farther and final category of

RELATION : 1. *Relation of substance and attributes.* The common essence is perpetuated through all the measures ; but, after the first measure, it receives the additional latent heat of fusion, and, after the second measure, the added latent heat of vapor, by which in each case the essence is changed to a still unseen though a different substance, passing first from ice and its properties to water and its properties, and then to vapor and its properties. Where science can only more obscurely fix the

latent interposed quantity, as in the changes of fermentation, we let the essence remain as permanent substance with only a latent variety of state ; as the same essential grape-juice has its saccharine, vinous, and acetic states with their respective attributes, the like substances or states in all cases having the like attributes.

2. *Relation of cause and effect.* The essence remaining the same and hidden, the more or less revealed quality applied to it is taken as cause and the subsequent change as effect. Thus the negation of heat, *viz.*, cold, is cause for congelation ; the degree of heat of fusion is cause for liquefaction, and heat, or some more secret quality, is cause for the stages of fermentation. For the understanding an invariable proximate antecedent to the sequence suffices for cause, without an insight to the source of efficiency.

3. *Relation of action and reaction.* Careful experiment finds matter as gravity, and heat as levity, each acting on and against the other, and if the gravity overwork the heat, the latter is excluded and the solid matter fills its own place as phenomenally a plenum ; but if the levity overwork the matter, the latter is excluded, and the diffused heat leaves its place as phenomenally a vacuum. Or again, if the matter and heat work together equally, the like careful experiment evinces that ultimately the matter and heat equilibrate in their action and reaction and stand together at rest, just as hopeless of any future movement and change in themselves as in the equal action and reaction of counter material gravitation. The process of changing conceptions thus soon comes to a termination, and the fluid water either refrigerates to a dark crystal, impenetrable to any sense, or it goes out in a vaporous mist too thin for any perception.

Both the logic of permanent and that of changing conceptions thus utterly fail to compass common experience ; the former abstracting conceptions too thin for thought to use, and the latter either petrifying or wholly exhaling. We must find a spontaneity whose logic can be both abiding and changing.

II. THE LOGIC OF LIVING SPONTANEITIES.—We have found all that the Logic of Mechanical Force can do to help the understanding in connecting the common experience into one consistent system; and we now know by scientific experimental testing, that it can be made to subserve such purpose no further than to set material bodies in uniform collocation, and give to them one order of invariable succession. But if the attainment of matter in uniform order of place and invariable order of successive rearrangements in period, in accordance with that of experience, were logically regulated, this would comprehend the facts of the material world alone, leaving all facts of spontaneous life and mind with no logical regulation. We have scientifically attained active spontaneities everywhere interworking with material gravities and levities, making in fact quite the largest and most important part of the world's experience, and these therefore should be made to stand in logical order uniformly and invariably with the phenomena of matter. Since they are facts of experience they must be comprehended in the logical system of experience; and still further, as we now see that the understanding itself is a spontaneous agent, it cannot dispense with its own agency, both as subject and object, in the conceptions, judgments, and categories it is systematically arranging. There needs must be a full acknowledgment of the capabilities and activities of spontaneity, and we must now carefully note what the conceptions of a spontaneous agency are; in other words, we must carefully inquire what such an agency can do to help out the understanding in its work of bringing all facts of experience into systematic unity.

1. *What are the capabilities of spontaneous activity?*—We have first attained it in its very highest form of empirical manifestation, as it elevated itself above common experience, and set itself intrepidly to the task of testing common experience by its own new and better applied experiments. Its first test in knowing was, that the primitive step in sense perception and observa-

tion had the precedent condition of an outer invasion of the organ, and all through sense-attention and understanding-recollection, spontaneous action has been thoroughly correspondent to the objective impression. Material object and spontaneous subject never manifest themselves separately and independently, but ever as correspondent and complemental. They are co-efficient parts in a whole, and neither can be a whole by itself, and so the conception of spontaneous action involves the taking with the act the conditioning solicitation also. This complemental conception of spontaneous activity, taken in its highest form of attending or reflecting,—in which was our earliest tried experiment of it,—is our best guide and example to show us what its lowest and most primitive manifestation, in organic productions, must be. In sense-attention and understanding-reflection we have ever found the working of mind to be after one invariable order; *viz.*: it, *firstly*, takes within its reception elements for its cognitions together in their manifoldness, as a promiscuous mass; it, *secondly*, distributes them separately and severally into sorted classification; and, *thirdly*, it puts all classes intelligibly in unity within itself. It is then a safe anticipation that we shall find incipient spontaneity, as instinctive life, working after the same order.

2. *What, then, is Life, and its first order of working?*—The prime work of life is the building up of its own organism, and it begins with the vegetable body, taking for it the constituent elements from the earth and infusing itself into them. The shortest definition of life thus is, *the capability to give spontaneity to matter*; and, inasmuch as increased heat is demanded for the work, it may be added to the definition that it is *through the medium of heat*. Gravity, thus, is made spontaneous through levity, and close scientific experiment gets the exact order of the process. Passing the order of cryptogams which prolong the old plant through spores or buds without sex-distinction, we have in sex-generation sperm given and received, and a complete ovum

or germ formed in which the living movement of a new individual begins and passes on in successive cell-constructions. In ordinary chemistry binary equivalents are put in complete combination, but in organic chemistry we have ternary and quaternary combinations consisting exclusively of the following peculiar primitive substances; *viz.*, carbon among the most insoluble, oxygen and hydrogen among those most in affinity, and nitrogen, when a fourth element is used, among the most volatile of all substances. Other substances supplement these, but only these completely combine in connection with the requisitely augmented heat.

Here then are the fitting conditions for the operating of living spontaneity precisely similar in their appropriation to those already so fully given in the working of intellectual spontaneity. The spontaneity of life only awaits the presence of the requisite condition, the first of which is the need to get the wanted gravitating matters which are promiscuously lying about. The medium needed is the increased internal heat inviting the spontaneity to take its expulsive energy, and go out in it to the gravity wanted, and then come back again in the impulsive energy of the gravity selected. The exactly appropriate conditions secure the living alternation, and the assimilating process of making, mending, or maturing its own organism is fairly begun, and may indefinitely be prolonged. The living spontaneity ascertained, we legitimately come

3. *To the logical verity and order of its categories.*—Both sides of the Mechanical Logic have left us incapable of further progress by their empty abstractions and balanced re-agencies. But we now have the scientifically tested spontaneous Mind, and its exactly corresponding spontaneity of Life, and can thus have a Logic of Spontaneity.

A direct evolving of life from matter science has never found in any experiment. Equivocal generation, or descent from mechanical force as truly as from sex-distinction, has been

earnestly and often quite hopefully sought, but as yet never found ; yet, all the same, the real connection of spontaneous life with material gravity and levity is a scientific fact beyond all questioning. Spontaneous activity and mechanical pull and push are really working together in full concurrence and exact correspondence, and in this the inorganic and organic kingdoms have their actual connection. Spontaneous need and want, longing and craving, is invitingly and solicitously co-operating with expulsive heat, or light, and the attractive matter ; and by the interposition, in some way as yet unknown to science, of spontaneous life, the organic realm is superinduced upon the inorganic. Matter is found *instinct* with life, and in the vegetable kingdom this is all that we can say of its intrinsic mode of operation. It has here neither sense nor reflex activity ; it is utterly below its own conscious regulation, and works in pure spontaneity ; going of its own accord and responsive to its congenial conditioning. The entire vegetable kingdom in specific organization is completely within the sway of instinctive spontaneity. The first category of living spontaneity is

INSTINCT. What the spontaneity needs for its complete conception as life is connection with its complemental part of materials which now lie altogether over within the mineral kingdoms, and which are the carbon, oxygen, hydrogen, and nitrogen, with their several supplemental primitive substances, which are absorbed but not chemically combined by the spontaneity in its work of founding its first organic kingdom. These, as it needs, it gathers from their promiscuous comminglings with other minerals, and separately takes and fits them for their component positions within its own new realm. By taking over to its side these material ingredients for its coming organisms, it permanently allies the mineral to the vegetable kingdom. The spontaneity is from some other quarter given, but scientific experiment, while it can say nothing of the origin of the spontaneity, thoroughly tests the reality of these materials and their unalterable

partnership still with the mechanical forces of the inorganic realm. These earthy matters are then put in complete coalition with the spontaneous agency, and the work of living organization has commenced.

The vegetable realm manifestly precedes the animal, though both are scientifically found quite nearly down to their common base among the minerals. The first empirical manifestations of life are spontaneous movements. The living motion is from the instinctive spontaneity assimilating and combining the tendencies of gravity and levity, and of course quite regardless of the separate directions of their pullings and pushings. The plant movement commences in experience with the seed, sending rootlets downward and stock upward from the nutriment enclosed in the seedling itself. Henceforth the sustenance is attained from the earth by the absorbing root, or as gases from the air by the inhaling leaves. In the growing tree, the yoke binds firmly the roots and stem together, holding them safe against the dangerous leverage afforded to the winds, and through this the nourishing sap circulates in the entire organism, maturing and conserving it as the abiding embodiment and instrument of the spontaneous and instinctive architect. The worker within annually extemporizes sex-distinctions in the fruit, bud, and blossom, and reproduces its kind through successive generations. Such is in general the work that is persistently carried on through all individual organisms of all vegetable species. The species preserves and perpetuates the common properties of its individuals, the spurious hybrid descendants remaining sterile or tending back to their kind, and the improved breeds from artificial cultivation at once decline toward their normal state when left to their own spontaneous procreation. Assumed indications of the spontaneous multiplication of species has no support from patient and full tried scientific experiment. From first to last, in the vegetable kingdom, instinctive spontaneity reigns alone. Neither the acting sovereignty nor the subjected organism shows

any indices of conscious perception or reflective conclusion. All is within and without silent, incessant, unconscious activity, while yet, in and over all, there is unbroken order amid perpetually intruding variety. There is continual need and want soliciting and stimulating the spontaneity in its work of instinctive construction. Yet no recognition of itself within nor of others without is manifest till we pass out to the second category

SENTIENCY. This is the original need in the spontaneity that beyond an instinctive rule it take on a sentient sway, and elevate itself in a new kingdom to the sovereignty of sense-consciousness. It introduces and presides over the entire construction and subsequent action of the Animal Kingdom. The instinctive spontaneity still remains and the sentiency is a super-induction upon it. The same note of its connection with the mineral kingdom is also to be taken, that while no experiment has tried any passage from the mineral to the vegetable, so here no experiment has ever found the vegetable begetting the animal, and yet, all the same, the animal does have carried up within it the instinctive spontaneity of the vegetable organism, and does take the like connection with the mineral kingdom as does the vegetable, in that it goes down to it for its constituent materials, and takes thence the like primitive substances for assimilation in its own organisms. Plants and animals are mostly made in their bodily construction of the like complemental and supplemental mineral ingredients. The three kingdoms cannot be said scientifically to be evolved one from another, but they can be said scientifically to stand in direct connection mineral, vegetable, and animal. The matters of the first go in to the next two, and the instinct of the second is found also in the third.

And now, just as the tree as highest vegetable has been organized instinctively, and science can get only the tried instinctive spontaneity from it, even its sending the roots to its distant sustenance in the earth, and its turning its stock and

branches to the light, and its extemporized sex-relations having all been from instinctive spontaneity alone, so we shall find it if we note the up-building of the organism of the highest order of sentiency in a Mammal. It will be as truly instinctive as the tree, yet not as purely so, for a sentiency is somehow superinduced upon instinct. This helps instinct to take its materials from the vitalized matter of the vegetable, as well as from the mineral, when better suited to its higher sentient instinct ; and its need of a sentient organism, and its want in using it when finished, all conspire to the instinctive work of separating, sorting, and finally assimilating its assorted elements into the highest animal organism. A nervous system with afferent and efferent connectives and ganglionic or coördinating centres, locomotive members, digestive viscera, and circulating, respiratory, reproductive, and yet more controlling than all, as the end of each, the special sense organs, the last so formed and placed that each has its own spontaneity internal, and its external the most facile for outer invasion and ready inner adjustment. Instinctive sentiency has done the whole of the organizing, and science can get only this, and its complemental chemically equivalent materials, by any tried experiments from it.

This highest instinctive sentiency can now use this, its own organism not merely, as does the tree, instinctively, but now quite consciously, and can define and distinguish and connect its sense-impressions within the scope of its respectively attending organs, one sense overlooking and guiding and observing another, just as we have already scientifically tested. And not this highest Mammal alone, the entire animal race, with all the sub-genera and species that have had their separate reality in common experience, in its individuality has been alike organized and made active in virtue of this myriad-sided instinctive, sentient spontaneity. The material elements science can only by testing experiment bring up from the mineral through the vegetable, but by no new trial can it find the evolved passage of the lower

species into the successively uprising genera. Empirical science can connect the respective kingdoms and their species only through the material complementary part of their conceptions, but how the spontaneous complementary part has been originated and elevated, science can as yet only presume, since never yet has it deduced the higher fact from the lower. We have the facts of the ascending sentient organisms, and that all have their material connection through each other with the vegetable and the mineral, but from whence the spontaneous with its rising instincts has come, no scientific activity has by any tried experiment been able to ascertain.

We have, however, already found this spontaneity in a higher sphere of activity, and may thus now test its organism just as we have done in the lower kingdoms. This will introduce the category which we must now note :

PSYCHE. In the sentiency the observation has been sharp and clear in its particular senses, but the connections of these as a whole have been so imperfect, and the present objects have passed in to the memory so vaguely and obscurely, that if the animal retain its bygone perceptions these are too inadequately constructed to permit any extended abstraction, generalization, or logical induction ; even though some more highly organized brutes from mere memory seem to make surprisingly quick and keen judgments, and quite cunningly guide their actions by what they have perceived in past experience. They judge according to sense, but they have no accurate retent to put under the sense and make for it a steadfast understanding. This the sentient spontaneity now needs, and with all the elevation it has now attained proceeds to the work of constructing the human organism in its finer mould and fairer proportions, and with its advanced faculty for including common experience in general judgments.

The more richly endowed spontaneity, with sharper instinct, goes down amid the mechanical forces of gravity and levity,

hemispheric magnetism and double-sided electricity, galvanism and its consequent chemical equivalents, making up one complementary side of its conception, while its own transitions from instinctive action alone through plant, and then animal, and now to human organizing make up the other side; and with these augmented advantages proceeds to the completion of its crowning work in Man. Even in the embryonic stages of his growth pretty sharp distinctions of increasing endowment are made to appear, and in its maturity the organism comes out erect, with open brow and expressive features, and organs of speech as well as sense, and more than all with the double intellectual life of sense-observation and understanding-reflection which we have before very concisely and sufficiently described. The objects of present observation go out from sense and in to the memory in the exact order of their perception, and perpetually retreating in the background. This newly-working power of the spontaneity here takes the past experience back in reflection in the inverse order of the direct perception, and holds it in steady contemplation for the full attainment of all logical relations. It is the chrysalis form of the old earthward observation, floating with a lighter body and finer movement in a thinner and purer atmosphere. The psyche is the reflex second life of the sentiency; and here the thinking elaborates the construction of the perceiving into the tried and tested logical science of the common experience. All spontaneity through all its categories is now virtually within the psyche, and stands as a whole in itself with its intrinsic possessions, all the parts of which may be noted in their logical successions and proportions. Such notice will itself be the last category of spontaneity, and may give for itself its own explanation.

RELATION. The categories in the logic of spontaneity have their peculiarly distinctive relations among themselves, thus separating this mode of reflective thinking from all others.

i. *In all these categories contradictory conceptions are trans-*

formed to complementary conceptions.—The material gravities of carbon, oxygen, hydrogen, and nitrogen, which are the chemical equivalents in organic combination through the medium of heat, are mechanically exclusive of each other in their collocations, and however close in contact, their surfaces are each to each utterly impenetrable. But the spontaneities take these contradictory material gravities and assimilate them to their respective uses, so that in the organism the material and the living spontaneity are precisely correspondent and supplemental in their conception. The body and the life are compenetrative and mutually intersusceptive. And this complemental conception is common to the three realms of vegetable, animal, and human control; the organisms are instinct with life in them all. It is the relation of *complemental efficiencies*.

2. *The spontaneities are dominant each in its own sphere, and all are subservient to the next higher sphere.*—The vegetable spontaneity takes the materials from the mineral kingdom which it is about to convert to its own organic uses, and subjects them completely to its instinctive sway, through all its specific and generic types of plant-organization. The animal spontaneity then takes its nutriment from the elaborated matters of the vegetable organism, as well as immediately from the air and the water, and builds up thereby its animal organisms, through all their rising grades of typical excellency, with no reluctance nor resistance from instinctive life below, but rather invited thereto by its preformative adaptations. And then the psychical spontaneity takes the organisms of both plant and animal, and without asking leave from either, converts them at pleasure to its higher appetites and appreciative estimates. This is the relation of *means to ends in the series of final causes*.

3. *The lower categories are within the control of the psychical spontaneity.*—They cannot come up into it, but it can at pleasure use the physical, instinctive, and the sentient for its own ends.

It is already endowed with instinctive and sentient life, and the human organism has in it the combined gravities and levities assimilated in vital communion which capacitate it to be the facile instrument of the soul. In this tabernacle the instinctive and sentient spontaneities have become reflective, and all past experience is put within the reflex area of the understanding-consciousness. The cause and condition for thinking in judgments are brought in unison. It is the relation of *free intelligence with the reflex experience*.

Here, then, is the termination of all our outlines of logic. We may feel sure that in the aforesaid three modes of verified thought we have done all that logic can do for a completed system of common experience. This last mode given is more connected and more comprehensive than any other, and fairly unites all the logical kingdoms, mineral, vegetable, animal, and psychical, into one connected process of interlogical rule and communion. But neither it nor any other empirically tested science can make succeeding kingdoms to be evolved preposterously the higher from the lower; nor can it or any other carry the thought empirically through an assumed generation of species one from the other. They all are, in this system of categories, fairly and scientifically connected from bottom to the top; but the interconnection of the species in the particular kingdoms, and those of the kingdoms with each other, are in no one instance found to be evolutions one from another by any fairly tested experiment.

And then, beyond all this, the logical connection goes, and can go, no further than the common experience which yet is open at both ends. No scientist can carry his experiments to the trial of any beginning, nor can he reach beyond the present and find an ending; he can only verify a process that goes through experience as it has been, but can say nothing of what preceded, nor of what shall succeed. The only mode of moving is deduction from uniform and invariable facts, and all pre-

sumption is worthless without the facts, and yet no facts of the unbegun or the unending are possible. We must be content, perforce, with the connections of the actual, since no science can ensphere the whole of experience in a universal.

Yet is one result quite clear and encouraging, that while matter with matter only counterworks and antagonizes, and so must by excess push or pull in movement as dynamic, or must balance in resistance and rest in static, and can do nothing to relieve itself in either, yet the connection of spontaneity with matter is ever in concurrence and co-operation. The two are complementary and correspondent, and are thus working together congenially in communion. The logic of spontaneities is ever a logic of conditioning and conditioned harmonies and consistencies. But still the condition is ever necessary to the spontaneity, and neither is of any account without the other. We may then here leave the further consideration of the logical understanding as connected with realities, and have nothing further in this chapter claiming consideration but a determination of what thinking in the understanding must be when divorced from conditioning realities.

SECTION III.: IMAGINATION. This has its varied meaning in different applications, and demands a somewhat careful discrimination.

1. *What is Imagination in the sense now needed?* — When one makes the likeness of a present thing, it is *imitation*; when of an absent thing, it is *representation*; and if in either case the likeness is determinable by the senses, it will be a *fancy-sketch* only; but if the likeness be determinable only by the correct connection of properties to the thing, or of changes in the thing, then the work is that of thinking in judgments, and belongs not to the sense, but to the logical understanding. It is then properly a work of *Imagination* and not of Fancy. Thus far, however, it is of the *reproductive* imagination, and would be in the same field, and only doing the same work, with which we

have thus far been busied in all our outlines of logical categories.

But when we attempt to give some new conception of connected properties, or a theory for the universal connection in experience of things and their properties, and events with their changes, we thereby propose a problematic mode of connecting in judgments and categories which is purely imaginary until verified by testing experiments ; and all such presented conceptions are products which stand alone in the *productive* imagination so long as destitute of confirmation by accurate scientific experiment. Such projected imaginings may be amusing, or harmlessly trifling, while taken as only the creatures of imagination which they are, or they may be useful if taken as only theoretic stimulants to deeper and surer investigation, but they can be mischievous only when by any plausible presentation they become assumptions of veritable realities. And now, as *productive* imaginations, they must have their rule from their logical mode of conception in order that they be taken, as imaginings only, to be legitimate. The first mode from *permanent* conceptions may abstract from the conception any imagined more general conception, even to an entire exhaustion of all content, but this thinnest shred of a conception must still be held as *extent* for the very content that has been eliminated, and the voucher for this and nothing else. And so the second mode from *changing* conceptions may assume any specific quantity, and make that the ratio for the measure in which the conception shall change, but the essence must combine both the quality and quantity, and must pass through the measure for every change. And the third mode may take any complementary factors for the conception, but these must so correspond as to work in co-operation through all the process. When so produced in any categorical form, the ideal or imaginary collocation, succession, or coalition is logically legitimate.

2. *That the produced imagination become science, it must*

pass the tried experiment. — The one decisive test for any permission to take productive imaginings for scientific attainments is that they have passed the trial of accurate experiment. We here give only the outlines of the testing process through which all productive imagination must pass before it can gain scientific acknowledgement.

The first mode of logical connection, in *permanent conceptions*, must be in accord with the requisition that all abstract conceptions of rising generality, through species and higher genera, have their properties in common as tested in reality ; and that the transitions from lower to higher genera be found to pass in tried fact, the one above directly out from the one below, and that in failure of such actual evolving, the whole process must be left standing solely as a work of the productive imagination, with no authority as a science.

The second mode, of *changing conceptions*, must be in accord with the rule, that the specific ratio be attained, and that the essence actually pass the specific measure at every change of the conception ; and that this be unbroken through all experience, or in fault of this the whole is an imaginary product only.

The third mode, of *living spontaneity*, must abide the test, that the spontaneity have its complemental side, in its conditional elements, experimentally found in the mineral kingdom, and thence actually carried through the successions of the plant and animal kingdoms into the realm of the human by rising instinctive spontaneities up to the psychical ; and wanting this, all pretence of science is mere imagination.

It is thus an infallible conclusion, that the much-mooted theories of evolution, mechanical and spontaneous, must find in tried experiments their higher conceptions to be actual evolutions from the lower in every succeeding grade of ascent, or the theories are imaginary and as yet only pretentious and spurious. If it still be assumed that the ascent has gone on from the simple to the complex through so indefinite eras of past time that it

has needed no leap, and has made no gap, the answering demand is still the same. Science demands the test of unvarying experiment, and failing that for any alleged cause, the assumed process, in the nature of the case, excludes itself from all scientific acknowledgement.

3. *The understanding, working in any way beyond logical reality, is purely imaginary.* — The psyche, or sentient soul, is the inverse reflex of past observation, and a valid retent of all that scientific experiment fairly lodges within it. This careful experiment may be made from remembrance, tradition, history, monumental records, fossil remains, or astronomic calculation ; and when satisfactorily attained as belonging to a past experience, they become legitimate facts for logical recollection, and may be put in conceptions, judgments, categories, and general syllogisms, carrying in their conclusions full credit for reality, in their assigned collocations and successions, which are henceforth not to be disputed. But here is the limit of its legitimate domain, and no matter how logically it pursue its subsequent process, pending the interposition of an untried premise, or an assumed postulate, the subsequent connections and conclusions are but empty imaginings, utterly intolerable to all scientific integrity. Any conception with abstract generalization beyond the highest genus found in tested experiment, or any assumed essence taken through a rate of measure other or further than tested experience has been found for it, or any alleged spontaneity whose complemental conditioning has not been actually in tried experience, that may have been admitted into its respective mode of logic, will in every case have made its result spurious and corrupt, and any pretence that this is science, and not imagination only, would be impudent arrogance. And now, since the first and second modes of logic have been utterly incompetent to compass either the beginning or the end of experience, while the third mode, though not enclosing the open ends of experience, has connected all within the open ends in

one process through all categories, and has moreover begun and ended that process by a complemental conception of mechanical matter and spontaneous agency which have worked together in concurrent correspondence throughout, and has left itself capable of indefinite regress and progress in perpetual co-operation and consistent communion, all this is a fair index pointing to and foretelling a higher faculty of human endowment than mechanism or spontaneity, which may be empirically found practically working out its cognitions in human experience, and which, when fully recognized and used, will be found amply sufficient to comprehend all possible human experience in a completely accurate and perfected system. We have done much and well with the tested processes of attention in sense and of reflex recollection in the logical understanding, but can do no more than we have done by scientific experiment and deductions from tried realities. And, if more is gained, it must be by a faculty that shall authoritatively forecast and induce, and not merely take the bygone and deduce. We now, then, proceed to a recognition of the Reason, as disclosed in human experience, and expect to attain full assent and conviction for its valid reality.

CHAPTER III.

THE REASON.

No experiment has yet found the animal which by any process of culture has passed from practical sentiency to scientific attainments. But men do rise, as we have now seen, from common human experience to empirical science. They are able to attain, for they do attain through the logic of mechanical forces and the logic of living spontaneities, both physics and psy-

chology, gaining in this latter a scientific recognition of the sentient soul of man in the full development of the reflex understanding. This is as far as scientific culture can go, in the acceptation that science can use no other faculty than that which gets tested facts and logically deduces their valid conclusions. And yet science is, even at this advanced position, still within experience, and can only say such experience is and such it ever has been, but whence it came and whither it leads and terminates are questions which science finds it equally impossible to stifle or to satisfy. The scientific mind cannot rest with this, for if all beyond is nescience, to know thus much is but empiricism incomplete and unverified.

Man, in his original endowment, has an intellectual faculty higher than the logical understanding, and which can know more than deductive conclusions from tested experiments. The proof of this is quite clear. As by a certain stage of intellectual culture we saw that the psychical faculty was fairly able to overlook the observed past and carry its logical connections and inductions through all the experience that has been, so by a farther stage the faculty is reached, which, by higher authority than any logical deduction, can give an induction of that which precedes experience, and is authoritative postulate in order to experience. This faculty may in full conviction and vindication transcend experience. By its insight it may read experience thoroughly, and by its oversight it can unfalteringly say what has been before experience, and what shall come of it, with greater assurance than any logical deduction has ever given. No possible deduction from experience has any validity except as directly dependent on the forecast and compass of an all-embracing *Reason*, and as this all-comprehensive reason is brought unmistakably to the clear apprehension of the finite human reason. This last faculty is the organ for philosophy, as the faculty of the reflex understanding was the organ for science; and if our philosophy is not made ultimately valid

through the full recognition of this higher faculty, our precedent science is but a mere seeming in an utter void.

We may as empirically find this faculty of reason as we did the faculties of sense and understanding. This is what we now need and propose to do, leaving the attainment of a universal philosophy by this faculty for future study.

SECTION I.: RECOGNITION OF REASON. We shall attain to a full acknowledgment of the higher faculty of reason by passing onwards to it through successive preliminary gradations, each of which will advance us to positions of clearer vision, and finally put us in full possession and better use of the faculty than any more abruptly attempted seizure of it.

i. *Our scientific cultivation has been possible only within the dawn of reason.*—We were led to the trial of the common experience over again, and lifted by the begun undertaking to a higher standpoint, only through the incipient illumination of our higher human endowment. Without such endowment we must have remained where the animals are, with neither the capability nor the desire to test the facts of sense-perception by careful and repeated experiments. And when the stimulant of this illumination had aroused the few to engage in scientific experiments, it was only the advance of the morning twilight that induced them to settle on the one scientific method which has been so unhesitatingly adopted, of getting tested facts, sorting and classifying them, and then pushing to bring the facts into as complete a system as was possible. All the earnest effort of empirical science has not yet been able to complete the system as required, and this never will be done but by the coming in of reason's full morning. How then account for the original rule of scientific procedure but in the fact of man's rational endowment? Man has his rational instincts as truly as the animal has his sentient instincts.

This morning dawn of reason was increasing in the capability to discern and test the facts of a self-acting spontaneity, and in

this to attain a psychology as thoroughly tested by experiment as any well-tried physiology ; and more especially we find the growing dawn in the clear detection of the fallacies of the Logic of mechanical forces in both its parts of permanent and of changing conceptions. This enabled us to see that no abstract generalizations could be made to pass on beyond reality and stand as vouchers for the universal ; and that no crowding of the essence through specific measures could prevent its ultimate self-relation from terminating in an immovable solid on one side, or a volative explosion on the other ; and thus that by neither side of the Logic can common experience possibly be systematized. And then even still more advanced is the dawn, when the Logic of the living spontaneity connects all the kingdoms—mineral, vegetable, animal, and psychical—in one, and then leaves the process open at each end for either a correspondent regress or progress. No self-elevation of sense, or of its reflex in the understanding, could give to either the sense or the understanding this capability to look through and over itself, and so detect its own deficiency while intent in the exercise of its proper logical capabilities. The rational no more came direct from the psychical than did the psychical from the sentiency or the sentient from the instinctive spontaneity ; but the rational in man, when made his endowment, may then be cultivated so as to give a critique of Logic, and furnish an imperative claim of unquestioning assent to its fair inductions.

The Christian revelation recognizes reason in man as a divine superinduction upon the sentient soul ; and to this science should most readily assent, since she has never been able by any tried experiment to evolve the reason from the understanding, and can only cultivate the understanding in the light of the superinduced rationality ; but when reason has become such a divine endowment, its growing light may evince its illumination of the psychical ere the sentient soul has awaked to the recognition of such a spiritual impartation and elevation.

While the eye does not see itself nor the ear hear itself, while neither observation nor reflection could take note of its own process, yet as a fact of experience we not only know what these operations are, and what must have been before them in order that they might be, but we take note also of ourselves as both capable of these operations and of looking before and through and after them. The common mind has already in it that which education may draw out to logical science, and thence to spiritual philosophy ; and the higher differs from the lower, not in specific common properties, but only in comparative development, the lowest human mind ever catching some rays from its God-given spirituality.

2. *Reason has further recognition with the induction of cause and effect.*—The psyche is but an exact reflex of the sentiency, and can claim as understanding no authority for its deductions beyond the order of facts that have been tested in the sense-observation. The term which expresses the uniform fact is also itself the law for all facts in uniformity. In the logic, Logos is both *word* and *law*, the expressed fact is itself the universal rule, and the logical science can have no other authority for the deduction of what will be, but the tested uniformity of what has been. Hence science can use no other meaning for cause than invariable antecedent and consequent, *viz.*, this must ever be thus *because* it always has been thus. But it is a clear fact of experience that we all do give a deeper meaning than this to cause, and a firmer bond than this to cause and effect. While neither sense-observation nor understanding reflection can know anything of *forces*, yet somehow or other we have been all along, though often all unawares, making use of these, both static and dynamic, as the essential basis and efficiency of the standing and flowing phenomena of our experience. The bodies of the solar system whose motions we have observed and put in systematic arrangement, we do also know are kept in their places and driven in their periodic revolutions

by static and dynamic forces. These forces we know to be prerequisites for the movements and arrangements of the solar system, as experience itself has enabled us to see and know them to be. The forces we know were first, and experience has been their product.

So, moreover, when we come to the connection of living spontaneities with their sequences we have a deeper meaning and by far a firmer bond. The life-instinct takes the mineral elements for ternary or quaternary chemical combinations, digests, assimilates, and incorporates them in the organism, works on in perpetuating it, and at length in reproducing others of its like, and we have the irrepressible conviction that there is a causal law precedent to the sequence, and that but for this precedent cause the consequent event could not have been. There is here a faculty, not *deducing* from past uniformity, but authoritatively *inducing* from present insight a working causality that makes the consequent more than certainty, even a necessity; without it the effect could not be, with it the effect cannot but be.

This instinctive life is working through all the vegetable kingdom, greatly varied in the varied plant species and higher genera, but invariable in its order through the same species and genera down the line of multiplying descendants. Then a higher instinctive sentiency is building up its higher organisms in the animal kingdom, variable in the various species, but fixed in the same species; and here also is the higher causal spontaneity working in each sense-organ according to its order, but various in the varied organs. In all these cases, the like faculty from its insight not only unhesitatingly affirms, but imperatively demands, the induction of a causal agency precedent to the effect, and in order that such effect should be.

And so also with all psychical processes there is a psyche-organism begotten, and a psychical causality working in the organism in exact complemental correspondence of condition

and spontaneity ; and while, to the psyche itself, its logos, as word and law, is the invariable order of experience, yet, to the insight of the higher faculty, here also an induction of causal efficiency, precedent to the thinking and in order that the thinking may be, is as authoritatively demanded as in the aforesited cases of plant or animal organisms. In all the above cases of induction by insight the authority is paramount and the assent more loyal than in the case of any deduction from mere logical uniformity. The higher faculty of Reason is here unmistakably distinct from the logical understanding.

3. The recognition of reason is still further advanced by its induction of space and time.—The induction of cause and effect determines the collocation of the properties of the effect, and in this is fixed the place of the effect ; and the connection of the successive effects determines their sequences, and in this fixes their periods. When cause and effects are once given in the reason, the understanding deduces the places and periods, inasmuch as they depend upon the collocations and successions of the causes and effects ; but the understanding can go no further than the deduction of place and period. Neither can the sense by any organ get more than larger or smaller place or period, nor can the reflex from past sense-observation give the understanding more than lesser or larger place and period, and thus neither from the precedent sense-observation nor from the reason induction of cause and effect can there be a psychical deduction of aught beyond places and periods. The science of the psyche, as such, can recognize nothing of space and time.

But reason as reason, by its own insight of place and of period, at once induces space as necessarily precedent to places, and time as the necessary precedence to periods. The places must already be *in* space and the periods *in* time. The reason does not deduce space from place nor time from period, but postulates the space and the time as necessary in order to any

place or period. The places and periods could not be except as the space and the time already had been. The causes and effects work themselves out in their places and periods, and fix these in their relative collocations and successions, the places extending themselves in space, and the periods succeeding each other in time ; the space does not stretch, but the places extend themselves within its immensity ; the time does not flow, but the periods pass along down its immobility. The substantial effects register themselves in their localities, and the causal efficiencies leave their impress in the linked sequences. The deductive logic of the understanding can have no ruling here, — the entire domain is under the imperatives of the reason.

And here is just the difference between the abstract conceptions of the psyche and the pure paradigms of the reason. The ultimate abstraction and generalization of the understanding is the superficial extent of the conception, which then has no content, but which yet is significant for just that and only that content from which it has been arbitrarily taken. The paradigm is that precedent modelling agency which the insight of reason induces as the necessary forecast in order that the coming event may so register itself in space and time as it is subsequently found to be. The reason has the sentiency and the psyche in full possession, and recognizes the exact modelling efficiency beforehand conditional for the event which the sense is to observe and the psyche to reflect. Aristotle always worked with the conception only, while Plato had the insight to the precedent working paradigm. That was to Plato, "the thing in itself," even while yet working itself out ; but for Aristotle nothing yet was that had not been logically conceived, and the most comprehensive being must be taken only by the most extensive abstraction.

Here also is the distinction between abstract conceptions and pure constructions in geometrical diagrams. No such diagrams would be possible for us if we had only the sense and

the understanding. The understanding has place but not space ; and as the place is but a deduction from some observed object, all the diagrams which the understanding may construct must be made from objects which have been first given to it, and cannot thus be pure geometrical diagrams. The surface abstraction is made the limit of the figure, and thus the figure includes its perimeter. The angle is thus the point made by the limits, and not the point of the area within the limits, and the same would be true of any other figure. Such figures are not themselves boundaries, but need to have their boundaries assigned as truly as do the bodies from which they have been taken. It thus follows that no similar figures, as triangles, circles, spheres, etc., can be any more coincident than could be the completely conceived bodies from which these figures are abstracted ; since, in putting the two in any way together, the abstract figures in contact would have surfaces as impenetrable as the bodies themselves ; while, moreover, a body with a perfect figure, as square, cube, circle, etc., must first be found as object before the perfect figure can be abstracted. No two equal right-angled triangles could thus be put together in a common hypotenuse, so as to make of the two a square ; for the hypotenuse of each triangle would hold each its own place, and the two could not become one figure. No cylinder could thus revolve upon its axis, nor a wheel upon its centre ; for the abstract axis or centre is not a line nor a point, but needs itself to be bounded and therefore to revolve as truly as the body to which it belongs. But it is a fact of experience that the mind does construct geometrical diagrams which are pure boundaries in space, and neither need nor admit of boundaries themselves. Such constructions are made perfect by a universal rule for their construction, and not by being abstracted from some perfect body. The demand for and the induction of pure geometrical diagrams evinces that man is endowed with a rational faculty above the psychical, and the opportunity for the scientist to test

this by any amount of new experiments is as open in the experience of the reason as it has been in those of the sense and the understanding.

And now, just as in the sense the scope of vision was the largest place and the broad field for the sense-consciousness, and also, just as the reflex of this sense-place became the largest place and the wide field for the reflective consciousness, even so is the receptivity or capacity of the reason the reason's space, in which there may be extension in three directions, length, breadth, and thickness, and the reason's time with successions in one direction. The reason-space is thus immeasurable and immovable, since within reason there can be no taking out nor putting in, nor transfer of parts, and beyond reason there can be no additions. Reason circumscribes the sentiency and the psyche, and brings thus the content of the one and the retent of the other to be its own *intent*, and is thus in its own right the comprehensive possessor of universal experience.

SECTION II.: RECOGNITION OF A REASON BEYOND THAT WHICH IS HUMAN. We have now fully come to the recognition of a human faculty for knowing, which is quite above the sentiency and the psyche, and which thus transcends both sense and understanding. But thus far this higher faculty has been not merely in the same organism as the sentiency and the psyche, and so has been human; it has also been in connection with the sense and understanding in their cognizing work, and so has illuminated all their science. We may now see that, if the dawn of reason in man had not found its opening in the common experience, no mind would have risen above its fellows and begun the work of science by testing the old in new trials of more careful experiment. Nowhere has the scientific mind been below the illumination of reason, while nowhere also, as far as we have yet gone, has reason been above the help of scientific experiment. It has been only by scientific experiment, by the careful trying over again of our experience, that we have

come to the knowledge of reason. Reason has thus reached down and enlightened science, and experiment has reached up and helped philosophy, until now when science helped by the dawning reason has carried us through the sense and the understanding, and then philosophy helped by scientific experiment has brought us to the full attainment of the higher faculty of human reason, we have not only an established science but are able to proceed to a purely rational philosophy. As preparatory to such a philosophy, after the consideration of the Susceptibility and the Will shall have completed our Empirical Science of the Mind, we may here note very cursorily the indications which the Intellect affords to us of the recognition of a Reason higher than the human reason.

1. *We need a sufficient reason for the cause induced by the human reason.*—The cause that the human reason induced was that which produced the uniform collocations and invariable successions found in experience, and which the logic of the understanding made to be the ultimate rule for its judgments and syllogistic conclusions. The cause efficiently made them and so sufficiently accounted for them. But then the query inevitably arises, What and whence is this cause? The cause was all along the living spontaneity, and its condition was the supplied mechanical elements of carbon, etc., the cause being effective only in the possession of its conditional elements, and the cause and condition always working in exact correspondence. In vegetable life the cause was simple life-instinct; in animal life the cause had its added sentiency and constructed its nervous organism and the special senses, and in the human the cause had its psychical addition and produced its organism of the reflex psyche, in all cases modifying, in the process, the conditional elements to the concurring correspondence of the cause and condition.

And now it cannot suffice to assume that the conditional forces of the elements were caused by a precedent force, for that

force would still need its prior force ; nor can it suffice to say that a spontaneous instinct, precedent to the vegetable, gave the vegetable life-instinct, for that would as much need its prior. The postulate of the human reason is to find whence has come this continual concurrence and correspondence of cause and condition, and no presupposition of either a mechanical force or an instinctive spontaneity can satisfy. Reason only can give and perpetuate such correspondence, and that too through such rising stages of intelligence in the effects. Mechanism has no reason ; instinctive spontaneity has no reason ; the human reason that induced the cause only authoritatively demanded, but by no means produced, that is, made the cause. The sufficient reason must have been before the cause and in order to the cause, and a reason adequate to the cause, or the human demand is utterly unsatisfied ; and all this must require a reason above the human reason. The human reason has its insight of all this, but no sense perceives it ; and the human understanding, immediately from the reason-insight, deduces the unhesitating conviction, that only a reason higher than the human can be sufficient for these continued uprising causalities. The alternative to this must be, that these causalities have come from unreason, and such an absurdity must be abhorrent to any rational being, and quite as conclusive for the higher reason as a tried experiment could be.

2. *We need a higher reason than the human for the space and time induced by the human reason.* — The scope of vision is the highest place, and successions in it give the highest periods that the sense can cognise, and the human reason cognises its own space-immensity and time-eternity as beyond all place and period.

Space, for human reason, is its capacity to take in all measures of extension, with its three directions of length, breadth, and height, which the understanding or its imagination may have any occasion to make. And the same for Time, with its

measures of succession in one direction. The space is immensity and the time is eternity for the human capacity, and is adequate for all human constructions; and yet this immensity and eternity for the human may consciously be inadequate to exhaust all measure for some more comprehensively constructing agency. The space and time for man's reason are rather so much as he can use of a higher reason's space and time, while the man cannot comprehend either the space or the time, other than that they are the man's own possessions and quite within his rule and jurisdiction. The human sense and understanding and reason are, to man's own consciousness, the intent of some higher reason, and not overt and independently isolate in an immensity and eternity of his own. As an intelligent being in his highest rationality, man is best satisfied when he most cheerfully assents to the conviction of a derived existence, and that for him there is the necessity for an immensity and an eternity *a parte ante* to his own. This conviction, that the absolute space and time which the man's reason has induced is no property of his own, is quite sufficient for the truth of a higher reason, in the absence of all empirical certainty.

3. *In this higher reason is the completed system of common experience.*—The insight of the human reason has seen the necessity for this higher reason in order to originate causality, and also to be capacity for the immensity of space and the eternity of time. It thus excludes the absurdity that causality had originated, and that space and time had been conserved, in unreason. Since unreason is not only other than reason, but is intrinsic opposition to reason, the denial of the truth of absolute reason is so absurd that its affirmation is as much beyond the need, as it is beyond the practicability, of an empirical confirmation.

This absolute certainty of the being of absolute reason perfectly systematizes common experience, otherwise presenting a problem thoroughly insoluble. Mechanical force is comple-

mentally held in the conception of living spontaneity, and this again in the spontaneous sentiency, and this further in the psychical spontaneity, wherein all scientific certainty ceases, but is again philosophically sustained by the insight of human reason in the induction of causality through the exact co-operation of the organic elementary forces with the efficient spontaneous activities ; all this gives a connected process in the insight of human reason, and this is infallibly held, in its immensity and eternity, in the absolute space and time of the all-comprehensive Divine Intelligence.

Universal human experience is thus intelligibly found in its facts, which are wholly sorted and classified in their separate kingdoms, which have in them their respective species, genera, orders, and classes, all tested in their reality by tried experiment, the top animality surmounted by humanity, and all held in perfect consistency by the one rational Divinity.

The human Individuality and separate Personality will reveal themselves satisfactorily in the coming chapters of the Susceptibility and the Will. We have now seen that cognition which necessarily inverted and reflected the sentiency in the psyche has reconciled the ambiguity in the comprehending spirituality.

SECTION III.: REASON KNOWS ULTIMATE BEAUTY, TRUTH, AND GOODNESS. The human reason which knows itself as finite, and knows a higher reason than itself, as the absolute reason, knows thus the supreme archetypes or patterns of all possible excellence. These archetypes when manifest to the human reason in form are Beauty, in principle are Truth, and in the personal self are the Good. The Beautiful, the True, and the Good are alike in that they all accord with reason ; they differ not in that any one is of a higher or lower degree than the others, but that each is a peculiar way in which reason can be revealed. Each is absolute in its own way.

Beauty, truth, or goodness is determined by the standard of reason alone. The requirement of reason gives law to art and

philosophy and personal conduct, and the only proper criticism is that which properly expresses the discernment of reason.

The standard of criticism, which is the standard of reason, is *the idea*. An idea is literally (*εἶδος, idéa, oīda, wit, wise, wisdom, vision,*) that whose vision makes us wise. It is a capability of reason, by which alone beauty, truth, or goodness is possible. Wisdom is the vision of ideas, or the insight which reason has into its own capabilities.

The idea is not made, nor can it in any sense be possessed by an individual. One may not speak of *his* ideas. In just so far as they are his, and not equally another's, they are not ideas.

The idea is and must be universal, and the proof that men everywhere recognize it as such is seen whenever they criticize or dispute. Why should one criticize another's work unless the same standard which controls the one ought to have controlled the other also? And how can two persons dispute, unless they both acknowledge a common standard by which the dispute can be adjusted? There is no absurdity greater than that of denying such a common standard, for the moment one seeks to justify such a denial, he appeals for this justification to the very standard which he has denied.

The idea is all-perfect. We may err in our apprehension of it, we need caution as well as clearness of vision here, but when the idea is seen in its own light, *i.e.*, when it is revealed as self-evident and universal, it is disclosed to us as the ultimate perfection, as is proved by the fact that we judge of all imperfection from its lacking the ideal. The imperfect cannot reveal itself as imperfect. Its imperfection is only seen in the light of the all-perfect. There is no standard of the imperfect but only of the perfect. There is nothing in themselves by which we can discern or declare the ugly, the false, or the wrong, but these are first revealed as they are in the light of the true, the beautiful, and the good. If we had been born in the darkness, and had never seen nor heard of the light, we should have no

knowledge even of the darkness ; and if no vision of ideal perfection had ever arisen upon us, we should be as ignorant of the imperfect as of the perfect.

Reason thus has its measure for all intelligence, and may carry an ultimate standard of criticism into each sphere of Æsthetics, Physics, and Ethics, and can thus decide with authority whether that which is fills its perfect measure. Reason thus is the sole and ultimate test for that which is universally best.

SECTION IV.: GENIUS. We have already discriminated the fancy and the imagination so as to leave no occasion for mistake in reference to either, the former determinable to the sense only and the latter to the understanding alone. We have now attained the faculty of Reason as above both the sense and understanding, and when this higher power breathes an inner life into what would otherwise be the dead products of these lower faculties, it becomes *Genius*, and is the prerogative of man only as he is rational spirit.

It is the large endowment of reason that gives genius, and the varieties of genius correspond to the threefold way in which reason is manifested. The genius is either artist, or sage, or, in the literal sense of the word, hero, as in large degree he sees and expresses the beautiful, the true, or the good. We note here only briefly the characterization of the sage as he shows himself to be either the inductive, the productive, or the speculative genius ; the mind, which traces up events to their causes and determines their abiding or changing peculiarities by an induction of first principles or primitive efficiencies, which expounds the facts of experience inducing their causes or principles, is in this respect an *Inductive Genius*. When this propensity to seize primitive causes, and get from them fixed principles and standard rules for future action, endows a mind so highly that the life becomes prolific of good results and successful attainments in any favorite enterprise or professional

employment, such a mind may well be said to be a *Productive* Genius. But, whether productive or inductive, inasmuch at it is positive realities which a person thus endowed has taken in hand, he does not permit himself to lose these in empty abstractions, nor on the other hand does he allow them to entangle themselves in unravelled absurdities, or to have their path barred by impassable contradictions. The "love of wisdom" turns to madness when it attempts to work with impredicative generalities of either being or action, and it becomes folly when it assays the comprehension of all human experience by running up and down a ladder, both ends of which must ever be within experience; while the philosophic genius in its speculation must hold to experience, it must also look over and through all experience.

There is sometimes a mind of such high rational endowment, that, having been awakened by experience to search after the hidden truths which are beyond experience, it beholds the truth in its own light, and is properly characterized as a *Speculative* Genius. Minds thus endowed are guided only by the most rigid imperative of philosophic integrity, and are equally above the control of poetic license or the need of scientific experiment. There is before them nothing but the contradiction between reason and unreason, and either the everlasting consistency of the one or the endless absurdity of the other must be taken. There is no appeal to sense or psychical reflection, and only a standing in reason or a sinking in folly that can be put over one against the other.

And when brought to this point we know that a rational being can have but one conviction, which does not need the test of an experiment, and which could not receive any additional validity if such experiment could be applied. That which elevates the man above the animal, which gives to him all self-respect and all claim to respect from others; that which debases him the most when he violates it, and which he most resents

when another insults it, and which never can permit any man to say, It is just as well for me to debase, and for another to insult this reason as it is for me or others to respect and honor it ; that which every man thus claims for himself and feels bound to accredit to another, and, in losing which, both himself and the other know they have lost all worth possessing,—*that* all experience must be judged by, and must be made to conform to, and must be held responsible for, or the only alternative is everlasting self-disapprobation and the condemnation of all others. Here, then, is the ultimate test of truth, covering all experience by going beyond all experience, and testing the intelligence beyond all empirical modes of trial, by putting the rational man's allegiance to his endowment of reason, with only the alternative that he keep it sacred or go over to the opposite unreason.

SECOND DIVISION.

THE SUSCEPTIBILITY.

WE have thus far been dealing with the intellect only, and we thus have been conversant only with facts of knowing. We have recognized the mechanical forces, which have interest neither in knowing nor in being known ; the instinctive spontaneity that builds up the vegetable organism without consciousness ; the sentient spontaneity that builds up the animal organism in the ends of sense-consciousness ; the psychical spontaneity that reflects past observation in the retent of the understanding for the sake of logical science ; and have attained the human reason in the interest of inducing truth precedent to experience in order to the philosophical comprehension of experience. All has thus been done in the interest and for the end of cognition alone. But no form of cognition is ultimate, and knowing is itself in the interest of a further end. What we come to know affects us agreeably or disagreeably, and our intelligent capability takes nothing which does not quicken under it some pleased or displeased feeling. The intellectual capability has ever under it an answering *Susceptibility* to which the imparted gift is genial or ungenial, and which prompts at once to a still further activity for gratified possession or a disgusted rejection. It is this sub-attendant upon cognition, as it comes up in experience, that we are now to try over.

We could not reach this motive-susceptibility as the spring to all executive agency except by a passage through the intel-

lect; and this intellect itself, separate from the susceptibility, would be but a sluggish, moribund faculty, fruitless and worthless in its own solitude. Each intellectual faculty of the sense, understanding, and reason has its own separate susceptibility, and through these come all the urgencies and quickening energies that start human enterprises and secure their practical accomplishment. Not here, then, need we be attentive to the tendencies precedent to cognition by which the spontaneity is brought into intellectual activity; but, after having cognized and thereby brought up the susceptibility to a quickened state of feeling, we are in this, by the like scientific experiments as before, to find what are the facts of feeling in common experience, how they are to be sorted and classified, and how at last they may be put into an exact and complete system.

We may, first, find it profitable to note, *some general gradations of feelings among themselves*. Beginning quite down in the incipiency of feeling which though sentient is yet as instinctive as the earliest spontaneous agency, we may see what changes in form they take on, by their successive modifying interactions, and by what terms they may be denoted.

When any impression is made upon any portion of the bodily organism, that is in communication with the brain as the grand sensorium, we have a *sensation*. The same also is true, when any inner agency of the mind affects itself, and thus induces an *internal sensation*. All this has been sufficiently considered under the head of Primitive Facts, and we need only refer to what has already there been attained. The sensation is antecedent to consciousness, and conditional to the perception of any phenomenon. We take, thus, sensation, in the absence of all distinct and definite consciousness, and we can only say of it, that it is mere *blind feeling*. No object is thereby given, and no separation in consciousness of the mind from its objects and thus, as yet, no self-consciousness is attained. Still, this blind feeling is not indifference to some end. There is an

intrinsic congeniality to certain results, which can only be known as a natural sympathy, or spontaneous attraction to a particular end, and thus in its blindness the feeling has its urgency in very determinate directions. It is feeling in a living agent, and prompts the agency in the direction thus inherently congenial with itself. The impulses of such blind feeling are known as *Instinct*.

This is the same, from the lowest to the highest orders of sentient beings, so far as these act in the absence of self-consciousness. From the simplest and most imperfect, up to the most complicated and completed organization, the sensation will be as manifold as the occasions for impressions upon living organs; but in all cases it will be such, and so much, blind feeling, going out towards its congenial ends, and thus, action only under the impulses of instinct. There is no light of consciousness, or of reason to guide; but the whole is controlled by that original creative act, which determined the congenialities of the feeling to its objects. Brute nature, unendowed with reason, but yet fitted with its adaptations by the Absolute Reason, is everywhere instinctively acting out its most rational issues. It does not know why it does as it does; its adaptations of means to ends are instinctive and not intelligent, but in all these adaptations the presiding presence of a Supreme Intelligence can be ever seen.

When feeling is no longer blind, but has come out in consciousness, so that it may properly be known as a self-feeling, it at once loses the directing determination of the natural want, or congenial attractiveness to its end, and is thus instinctive impulse no longer. The agent feels in the light, and no more waits on the instinctive prompting, but seeks the guidance of conscious perceptions. Not now is it feeling blindly impelled, but feeling waiting to be consciously led to its end, and thus an appetency to its object. In such a position, sensation has risen from an instinct to an *appetite*. The feeling is living and

active as before, and tends towards its congenial end ; but it has raised itself above, and thus lost, its instinctive determining ; it waits on perception in experience to guide it, and should here be known as susceptibility waiting on the determining intelligence. Thus the blind feeling of want in the infant, that instinctively reaches the breast, becomes conscious hunger in the man, and looks around for an object to satisfy it.

When the feeling, as appetite, has gratified itself in an appropriate object, and that object has thereby become known as competent to impart this gratification, and thus there is no longer an appetency for something that may gratify, but the object that gratifies is itself known ; the sensation has risen from a mere appetite, and become a *desire*. Hunger craves without a known object, but as an appetite it seeks for such object ; desire also craves, but it is for a specific, known object, and as having already its understood capacity to gratify the feeling.

In all desire there is a craving, a longing that would attract the object to itself, as it were, to fill up a void ; but when the feeling would go over to the object, and permanently ally itself with it, it has lost all its characteristic of a craving, and is, as it were, an effort at absorbing it, and thus is no longer a desire, but an *inclination*. A desire craves, and at once expires in exhausting the object ; an inclination bends towards, and permanently fixes itself upon the object.

There is that in the constitution, or that which has been subsequently acquired, which determines the direction of the inclinations, and without which, and against which, it would be impracticable that the particular inclinations should be experienced. This constitutional or acquired impetus to a given inclination is a *propensity*. We shall subsequently better see how propensities are to be controlled, and how inclinations that are determined from them are nevertheless responsible ; but at present the sole object is to define the different leading divisions of feeling, and thus discriminate them in our conscious-

ness, and not to look at them in their different aspects toward moral accountability.

When the mental activity is passing on in even flow, whether thinking, feeling, or willing, and there suddenly on any occasion arises a perturbation of feeling, a ruffling and disturbing of the placid tranquil experience, which, for the time, to a degree confuses and bewilders, arresting all onward movement to an object, and holding the susceptibility in a state of agitation, without any prompting of inclination or direct craving of desire, such a state of feeling is properly termed *emotion*. The feeling in desire and inclination has its distinct object not only, but also a distinct action towards it; the feeling in emotion has also its object, but it is as if in commotion before it. In wonder, I stand before the object astonished; in awe, I stand confounded; in joy, I stand transported; in fear, I stand transfixed; in all, I stand before the object with feelings so confused and disturbed, that there is no direct current of feeling towards any end. That normal state of the susceptibility which predisposes it to emotion, is *excitability*; and this may be a general sensibility, that awakes in agitation with every changing wind that passes over the mental surface; or it may be a tendency to agitation from certain sources only, and thus a predisposition to particular characteristic emotions.

When the onward movement of desire or inclination towards its object is suddenly invaded, and the whole mind put in confusion, and yet the emotion, instead of arresting the current, goes on with it and makes it to be a perpetually perturbed and agitated flow of feeling, the desire or inclination being so strong that the emotion does not suspend nor change its direction, it is then *passion*. The distinction between emotion and passion is, that simple emotion is agitated feeling with no current, while passion has the strong current of desire still rushing onward to its object, though so agitated as to pursue it blindly and furiously. And still farther, the distinction between incli-

nation and passion is, that simple inclination is an even flow, while passion is that flow disturbed by a strong emotion. A sudden danger to a child may so arrest the current of natural affection, that the parent stands transfixed in an emotion of fear; or it may be that natural affection rushes on in spite of all disturbance, and strives to rescue in a frenzy of passion. Othello's love for Desdemona is not arrested by Iago's representations of unfaithfulness, but only terribly agitated, and pushes on in a frenzy of jealous passion. No increase of emotion or of inclination can make passion, but strong emotion and inclination must be blended to produce passion.

When the mind, either through its judgment or its insight, has committed itself to some practical conclusion in which it finds an interest, the interested feeling which springs up in and with this commitment is a *sentiment*.

When the susceptibility is quickened by the presence of a rule of right, given in the insight of reason, there is at once the constraint of an imperative awakened; the conviction of duty arises, and the feeling is that of *obligation*. In desire, the feeling goes out in craving for its object; in inclination, it goes out to rest upon its object; in obligation, the object comes to it, and throws its imperative bonds upon it. The forecasting of a time of trial and arraignment before some judicial tribunal awakens the peculiar feeling of *responsibility*; and the inward consciousness of having resisted the current of obligation is accompanied with the feeling of *guilt*; and the self-accusation which ever attends the feeling of guilt induces the feeling of *remorse*.

When the inclination goes out to its object under the determination of a permanent propensity, it is *affection*. If this permanent propensity is constitutional, whether it be temperament of body or original conformation of mind, it is *natural* affection; if the propensity is in a state of will as reigning disposition, it is *moral* affection. All affections are feelings, but

the prepense direction to them may come from physical constitution, or from ethical disposition.

This may be sufficient for the discrimination of the leading acts of the susceptibility, and, without here attempting to find every specific feeling that may come into human experience, and classifying them all under some of the above definitions, or without implying that there are no other generic forms of the activity of our sentient nature, which might render farther discriminations necessary, before we should make our analysis complete in this direction, the above is sufficiently comprehensive for all necessary direction and illustration, while the designed order of classification in our psychology will now proceed under quite other divisions of the feelings. Without particular regard to the above discriminations, any further than the obvious propriety of applying terms according to distinctly apprehended meanings, the susceptibility will be analyzed, according to the permanent capacities in human nature, in which it has its distinctive exercises. Man participates in a sentient, psychical, and rational existence, and thus his susceptibility will have its corresponding modifications. There will consequently be occasion for the distinctions of the *Sentient*, the *Psychical*, and the *Rational* susceptibility, for each of which there will be the need of its own distinctive chapter.

CHAPTER I.

THE SENTIENT SUSCEPTIBILITY.

LIFE begins its manifestation with the interaction of spontaneity, and mechanical forces. The living spontaneity puts carbon, oxygen, hydrogen, and nitrogen in chemical combination, and thereby constructs the varied organisms of the vegetable kingdom. But in all plant life there is the absence of all

cognition and so also of all feeling, and the entire realm is but instinctively ordered. A sentiency is superinduced, and the animal kingdom has its sentient organisms constructed by a higher instinct, which, in the use of such sentient organisms, rises to conscious perception and observation, and finds beneath the sense-cognition the susceptibility also to sentient feeling. As the organism is from the superinduced sentiency, and the susceptibility is thereby instinctively originated, so this susceptibility will begin in instinct, the feelings will be constitutionally conditioned, and the sentient activity will flow from the cognitions in the ordered successions of conditioned cause and effect. Inasmuch as the man is sentient, by so much must he be conditioned to come up through instinct into conscious knowing, feeling, and action, and as sentient to participate in all the restrictions as well as the super-inductions of his animal organism. All our emotive capacity waits upon our intellectual capacity. Only as the intellect is aroused and goes out into specific acts of knowing, can our emotive nature be excited and go out in specific acts of feeling. Antecedently to all self-consciousness, the knowing and the feeling are confusedly blended together, and the mind has in this state no capacity to any distinct emotion. The one mind becomes capacity for feeling, by spontaneously producing itself into an emotive state. It is thus a susceptibility; a capacity for taking feeling, under the inspiration of the intellect.

Inasmuch as man has an extended intellectual capacity, so his capacity for feeling may be extended, and all varieties of knowing must give their modifications of feeling. While, therefore, the human intellect operates in higher and wider spheres than the sentiency, and thus has a susceptibility proportionally elevated, there is also a sphere of knowing common to both man and brute, and, in this particular, a sphere of feeling that is to each the same. Whatever may be the greater clearness and completeness of knowledge in the same field, this will not

modify the feeling to make it different in *kind*, but only varying in degree. In the man, it will still be sentient feeling, and so far as the feeling waits upon the knowledge given in sense, this will bring no prerogative to the human susceptibility. Here is, thus, the lowest form in which the human susceptibility develops itself in specific feelings, and yet a form completely and permanently distinct from that which originates in man's higher rational being. The importance of this division in our classification is in the fact, that there is this inherent and lasting distinction in human feeling, separating the sentient or animal feelings from all others in our experience. The Sentient Susceptibility is *the capacity for feeling which has its source in our sentient constitution*.

The exercise of this susceptibility must be in such feelings only as terminate in the sense, and can never transcend the limits of the natural world. Confined to the sphere of the sentient constitution, all the feelings are impulsive and transitory, coming and departing with the impressions made upon our constitutional organization. They are thus desultory and involuntary, and can be restrained only by reciprocal counteraction; the agent is controlled only by setting one opposing feeling over against another, and repressing strong desire only by strong fear. In all the working of this susceptibility, man is only animal, though from the completeness of constitutional organization, an animal of the highest grade.

The feelings of the sentient susceptibility may be arranged under the following sections: —

SECTION I.: THE INSTINCTS. The lowest form of mental excitement is found in organic sensation, which is induced by some impression made upon the organism. It must precede, and is conditional for, an awakening in self-consciousness. In mere organic sensation, the intellectual and the sentient are both present, for the impression gives its affection to the mind itself through the sensorium; but they are present as wholly

indiscriminate, and therefore neither as distinct knowledge nor distinct feeling. We recognize the whole, not in consciousness but only in speculation, and can apprehend the sensations only as mental facts of knowing and feeling, in their confused and chaotic being. The intellectual agency, as defining and distinguishing, must move over this chaos, before it can be brought out in clear form.

But precisely in this state of undiscriminated mental feeling there is an inherent urgency to action in a determinate direction. The feeling has its own congeniality to certain ends and objects, and thus spontaneously goes out under the determination of this attractiveness to its object. The sense guides itself, by its innate adaptedness to certain ends, and thus acts directly towards its congenial objects, before the mind can discriminate these objects in consciousness, and guide itself to them in its own light. The reptile turning under the tread ; the young of animals or man clinging to the breast ; the adult just rousing from a sleep or a swoon, are all illustrations of the impulsive nature of instinctive feeling. It has many degrees of obscurity from its darkest strugglings up to its half-conscious agency, but whether in man or animal, it is everywhere, so far as it is instinctive feeling, the constituted congeniality and adaptedness of the sensation to its given result, and thus an impulsive working to its end in the absence of self-consciousness. All its promptings are of blind sensation, and are determined in their intensity and direction, solely from the urgency of an intrinsic congeniality in the sensation to the end induced. What is meant by the instinct is, not the affection in the organ, but that congeniality or attractiveness in the sensation towards the end, which at once gives the urgency in that direction. Hunger in the infant and the adult may be the same sensation ; but in the infant there is an instinctive prompting to the object of gratification, which is wholly lost in the direction that the light of consciousness gives to the adult. The migrating bird not only

feels the air in which it moves, but this sensation has its want urging towards the warm gales of the south, when the rigors of winter are approaching.

SECTION II.: AFFECTIONS IN THE ORGANISM. The animal organism is a combination of material forces put together by the living spontaneity, with a sentiency superinduced upon the mere plant organism, and though this mechanical matter is in accordant correspondence with the living spontaneity, yet is it but a coarse and rough element for assimilation in the human body, and must give frequent occasion for disorder and disease by its chafing collisions. The man who best knows his own organism will most clearly recognize his susceptibility to uncomfortable experiences.

When in its fresh and healthy condition, vivacious and vigorous, the feeling will be of an indefinite glow of animation or exhilaration, and this not seldom exchanged for weakness, weariness, and lingering sickness. But the deepest feeling above the instincts is the recurrence of sharp pains in some smitten portion of the body. In the time of fierce distress the urgency is for immediate relief, and the resort is had to any sedatives or opiates at hand, leaving more curative remedies to be applied when the intolerable agony has been soothed. Every human organism is any hour exposed to sudden anguish from sudden assaults quite unanticipated.

The afferent nerves communicate with the outer world at every point of the surface, and thus all varieties of temperature and all changes in contact are perpetually modifying the bodily sensations, and the organism is susceptible of new feelings every hour.

SECTION III.: THE APPETITES. When any constitutional sensation is awakened, and the instinctive urgency which determines it towards its end has passed away,—since by contact with the outer world the man has become cognizant of his own organism,—there will yet be feelings seeking their end but now

looking to cognitions for their guidance. A feeling of this sort is properly termed an *appetite*. It is often expressed as a *longing* after its end, and this is only descriptive of the feeling, as if in its seeking it elongated itself in the direction towards its object.

There are some sensations which seem eminently to have this appetency to a particular end, and which are thus more emphatically termed appetites, as hunger and thirst. In a peculiar state of the great organ of digestion, when the stomach is empty of food, there is induced a peculiar sensation common to all animal being, which at once seeks for some congenial object to relieve it. This is known as hunger, when the stomach is empty of food ; or as thirst, when destitute of drink ; and these seekings or longings in hunger and thirst are eminently appetites. But all other constitutional sensations, which go forth in longing for some congenial end, are equally appetites, and belong here to this division of the sentient susceptibility. The sensation of fatigue, which longs for rest ; of protracted wakefulness, which longs for sleep ; the longing for health in sickness, and for buoyant spirits in nervous dejection ; the going forth of animal inclination between the sexes ; and the longing for a shade from the heat, and for a covering from the cold ; these are all sensations seeking for gratification, and are as truly appetites, as are hunger and thirst. To these should also be added the longings which go out for gratification in the sensations of all other organs. The eye and the ear, the smell, the taste and touch, give sensations that long for gratification as truly as the uneasiness of an empty stomach, and as thus truly appetitive, the seeking feeling should, in each case, be known as an appetite.

When the experience has tried the particular object that gratifies the longing for relief, and thus the sensation now goes out specifically for a particular object of known gratification, the appetite is then lost in a desire, and the general seeking or

longing for relief becomes the direct craving for a distinct gratification. This may also be so agitated by the sudden presentation of the object that the desire or inclination goes out furious and frenzied in enjoyment, and in this hurried rush of feeling the desire becomes a passion. The appetites may thus readily be raised to desires, and these excited into passions; but through all these forms of seeking their objects, they are still sentient feeling only, and exist in brute and man of the same kind, however they may be modified in forms or degrees. It should also be noted that the appetites are nearly allied to the instincts, differing from them only in rising to the light of self-consciousness, and thus liable to sink back again to a mere instinctive impulse, when an absorption in the pleasure of gratification so far obscures the discriminations of self-consciousness. An animal and a man may be so intent in gratifying appetite, and so absorbed in the pleasure, as to lose all consciousness of what is about them, and what they are; and thus absorbed, their gratification is as instinctive as that of the infant at the breast.

The opposite feelings to appetite, as loathing or satiety, need not be particularly considered, inasmuch as they follow the same laws, and are subject to the same determinations, except as throughout they are the converse of the former.

SECTION IV.: NATURAL AFFECTIONS. There is a love which is solely pathological, originating in constitutional nature, and determined in its action and direction by an innate propensity. Such an inclination differs wholly from that spiritual affection which appropriates its object freely, and strikes its root deeply in the moral disposition. Of this last we shall speak fully farther on, but of the former only are we now concerned to attain an adequate conception.

There is in the parent a deep propensity to an anxious and watchful solicitude for the welfare of the child. This is strongest in the breast of the mother, and though the most tender and

wakeful towards the child in infancy, yet is it perpetuated through all stages of experience until death. A benevolent provision is in this made for the care and nurture of the child in its helplessness, far more effective than any governmental regulations could secure. The strength and tenderness of maternal love may be regulated and elevated by moral and religious considerations, and thus come to partake of the characteristics of a virtue, but in so far as any such considerations mingle, they are wholly foreign to the maternal inclination as here contemplated. The whole feeling is that of nature, and to be destitute of it, in the case of any mother, is to be simply unnatural. The inclination of the father towards his child finds its origin also in a natural propensity, but its strength and constancy depend mainly upon the action of connubial love. If the mother be not herself loved, the love of the father to his children will be easily overborne by opposing considerations. In lawful and affectionate wedlock the natural regard for the offspring is secured perpetual and active in both the parents. It is useless to inquire for any parental instinct, by which natural affection might be directed to a child not otherwise known ; for one condition of natural parental affection is that the child be not only the parent's own, but known to be so. That the mother deems the child to be her own is a necessary, and the sufficient condition, that her love should go out towards it.

This love is strongest in the parents ; reciprocated in the children towards the parents ; mutually directed towards each as brothers and sisters ; and extended to all the kindred, in modified degrees, according to nearness of relationship and circumstances of communion. Nature itself prompts to communion, as occasion may offer, through all the family circle ; but if circumstances prevent all intercourse, the ties of natural affection become thereby much weakened. In the mere animal the maternal solicitude appears, occasionally connected with that of the male where they procreate in pairs, but continued

only during the helplessness and dependence of the young, and lost when they are competent to provide for themselves. It is because man can trace the lines of kindred descent, and diffuse his communion through all the circle, that he comes to perpetuate and extend his family affections beyond those of the mere animal. The occasion for their exercise and cultivation is thus given in man's higher endowments ; but the source of natural affection, in man as in brutes, is solely in constitutional pathology. It is nearly allied to the appetites. The feeling has its intrinsic congeniality with its object and adaptation to its end, and thus seeks its object as an appetite ; but it differs both from an appetite and a desire, in that it seeks its object for the object's sake, and not that it may absorb it into its own interests. It is not merely an inclination, as tending towards, that it may connect itself with, the object ; but it inclines toward the object solely that it may subserve *its* welfare. It is thus an affection, but as merely pathological, and finding its whole propensity in constitutional nature, it is *natural* affection only.

SECTION V.: SELF-INTERESTED FEELINGS. An appetite seeks its end in gratification, and a desire craves its object that it may fill itself with it ; but in distinct cognition, I may come to appreciate any object solely in the use I may make of it for my happiness. I contemplate myself as a creature of appetites and desires, and the objects which my appetites seek and my desires crave I contemplate, simply as ministering to my happiness in gratifying these appetites and desires ; and with the objects turned towards me in such an aspect, a large variety of feelings may be induced, all of which will agree in this, that they wholly terminate in my own interest. The feelings here contemplated will not go out direct towards any object, but will all be reflex upon the self, and terminate solely in self-interest. They will be impossible to him who could not contemplate himself aside from his desires, and estimate his very desires and their objects as the means of so much self-enjoyment.

Thus I shall have the feeling of joy in the possession of such desires and their objects, for the sake of my happiness, and not for the object's sake. In the loss of such objects I shall feel grief, not on their account, but my own. The feelings here will be mainly emotions, excited in reference to my own immediate interests in the objects. Joy in the prospect of possessing, and grief in the danger of losing ; hope and fear ; pride and shame ; tranquility and anxiety ; animation and despondency ; patience and perplexity, all may be awakened as I am made to view objects in their varied relations to my own interest.

Here also come in all the feelings connected with *the acquisition and possession of property*. All objects that minister to my wants touch at once the feeling of self-interest, and excite the propensity to get and retain for future use. As it is my enjoyment which is to be secured, so the objects must be in my possession, and my right to them capable of being defended against the claims of any others. An immoderate anxiety in securing such possessions is the feeling of covetousness, and an immoderate eagerness to hoard them is the feeling of avarice. If this goes so far as to deny itself the enjoyment of the use, and makes mere accumulation the end, the feeling then becomes the *passion* of avarice, inasmuch as the inclination to hoard is disturbed, and perverted from its end. When money, or that which may be exchanged for the objects that may minister to our enjoyment, is accumulated, we have the secondary or *derived* feelings, which regard the possessions not in themselves, but in their relative bearing upon such as we may want and may by their means attain. There may also be a complete passing over of the feeling to the simple object of exchange, and in the perturbation of the passion, that thing be hoarded for itself. So the miser *transfers* his feeling from the objects of gratification the money might get, to the money itself, and refuses all use not only, but all accumulation of anything but hard specie.

Here, also, are found the feelings which originate in an *anti-*

pation of consequences. Experience abundantly teaches both man and animals, that certain present gratifications of appetite are followed by greater coming evil. They learn by experience to avoid certain practices, that would in themselves be agreeable, since, from the past, they know how to anticipate the future consequences. Such a deducing of prudential considerations, from the generalization of experience, very much modifies the feelings. Present desire is suppressed, and a provident foresight awakens new inclinations. The feelings of self-interest are addressed from a new quarter, and the judgment of an understanding according to sense is made a strong means for exciting the susceptibility. The man may take into his estimate a far broader field of experience, and deduce a much wider series of consequential results, than the animal ; but the intellectual operation is the same in kind, and the prudential feeling is of the same order in both. It is solely sentient feeling awakened by calculations from animal experience, and prompts to action in the end of self-interest only. Mere prudential claims never reach those emotions which are stirred by the authority of a moral imperative. There may be the gladness of success, or the regret of failure ; the gratulation of prudent management, or the self-reproach of improvidence ; but there can never be the moral emotions of an excusing or an accusing conscience.

From considerations of self-interest there also arise the many painful and *dissocial* feelings, which are directed against whatever is supposed to interfere with self-enjoyment. Envy and jealousy, hatred and malice, anger and revenge, are all aroused amid the collisions of opposing interests. These may all become vices from their connection with an evil will, but the animal nature alone has within it the spring to all such naturally selfish emotions.

SECTION VI.: DISINTERESTED FEELINGS. There is in human nature a strong propensity to society. A psychical and rational

susceptibility elevates to social communion in much higher spheres, qualifying for scientific, moral, and religious intercourse ; but the yearnings of the sentiency itself are for company and fellowship with those of its kind. Brutes are more or less gregarious, and even the animals that live mostly in solitude seem to be forced to this isolation from the scarcity of their prey or the necessity of their hiding-places. This social propensity stands connected with many feelings which find their end in the welfare of others, and that have no reflex action and termination in self. Inasmuch as they refer to the interests of others, and are exclusive of self-interest, they may be termed the *disinterested* feelings. The self is gratified in their exercise, inasmuch as it is so constituted that it enjoys the play of these emotions for others ; but the end of the feeling is in others, not in self, and it thus comes in as one of its own enjoyments, that it should feel for its fellows.

Here are found all the natural sympathies of our nature. Other men have all the varied feelings which belong to our own experience, and the witness of these feelings in others naturally enkindles a kindred feeling in ourselves. Except as the selfish feelings have been allowed to predominate, and thus to repress our disinterested emotions, we shall naturally rejoice with the joyous, and weep with the weeping. According to the varied experience of our fellow-men our own emotions will be excited ; and we shall feel pity or fellow-pleasure, condolence or congratulation, just as we see others to be affected. Such animal sympathies extend to all sentient being, and the happiness or suffering of the brute creation strongly affects the susceptibility of man. Even animals themselves deeply participate in these sympathies, and are moved by the glad sounds or the cries of other animals. There is often a quick sensibility in very immoral men, and the natural sympathies of some good men are slow to be aroused ; and thus quite aside from all moral disposition the natural feelings of men may render some far

more amiable than others, just as some animals may enlist our sympathies much more strongly than others.

The disinterested feelings may be modified by *anticipated consequences*, in the same way as the self-interested feelings. Experience may teach us plainly what is best for others, as what is most prudent for myself; and this general consideration of consequences will at once awaken its peculiar feelings in reference to others on whom the consequences are to come. All the feelings of kindness, or natural benevolence and philanthropy, are here exhibited.

They prompt to the denial of self-gratification for the happiness of others; or rather, these disinterested feelings make the man the most happy, when he is making others happy. The feeling is pathological only, and in its exercise the man is kind just as sometimes the brute is kind to his fellow; and in this working of sentient sympathetic feeling many acts of self-denial will be put forth, and human distress relieved, when the charitable deed has in it nothing of ethical virtue, since even animals sometimes deny themselves for their kind and manifest natural kindness of feeling. In man disinterested feeling may be more comprehensive, and his calculation of consequences further extended for others' benefit, but in man as in the brute the whole is but the urgency of sentient susceptibility, and nature only, with nothing of moral character, must have all the credit for the kindness.

The entire sentient susceptibility rests, thus, in present good, since it knows not whence the good comes nor whither it goeth. The feeling never transcends the cognition.

CHAPTER II.

THE PSYCHICAL SUSCEPTIBILITY.

In the psyche cognition is quite considerably advanced beyond the sentiency, and thus the susceptibility is proportionately augmented. While the sentiency has the present in observation, and this gives its corresponding feeling in the underlying sentient susceptibility, the psyche has a retent of the past experience, from whose reflex inversion of plan in place and succession in period, it may make re-collections to any extent, and test these in their reality by any amount of careful repetitions. These re-collections may then be put in their precise conceptions, and ranged in formal judgments, and then carried to their deductive conclusions in logical syllogisms. Under all these logical processes there come the respective understanding cognitions, and under the varied cognitions stand also their respectively varied susceptibilities, each giving its certain occasion for its certainly conditioned feeling. We give an outline of these, sufficiently explicit and detailed to render the whole field of psychical experience in feeling as exact and clear in its reality, as in the intellect it has already been done for the psychical experience in knowing. The feeling in this field waits on the knowing as determinately as we have just found it doing in the field of the sentient susceptibility.

SECTION I.: THE PLEASURES AND PAINS OF MEMORY. The sentient animal has his memory, and in some exceptional cases, as the dog and the fox, he recalls the past so clearly and correctly for short periods, that what seem to be his judgments according to sense-observation are often surprisingly sharp, and his susceptibility to feeling and action manifest cunning and skill wonderfully approaching toward human calculation and

practice. But no animal has the psychical reflex of past observation, in its plan of place and period, as is given to man in his understanding-consciousness ; and hence no brute can be cultivated to the capability of managing and applying scientific experiment to the test of his remembrances, and then putting under them a susceptibility to intellectual interest and feeling, as is so ready to be accomplished by man. The first step onward in this process to scientific attainment of cognition and psychical susceptibility in man is in the pleasant and sad feelings which he derives from his recollections. Man, as no animal has the faculty to do, can recall past scenes, of more or less extent of place and period, and take them in their relation to his life-long experience ; and, with each commingling its interest in all, the one life becomes a checkered experience of varied cognitions and emotions, which not only no animal, but no other man than himself, can have in contemplation, and to whose blended joys and sorrows no other man can be susceptible. While youth is habitually anticipative, the aged come more and more to live in the past, and the one life becomes the more rich although it is the more solitary. For one who has lived long, his psychical retention of all his past experience is the biography of deeper meaning and interest than that which any other man will be able to write for or of him.

And just in this psychical recognition of the past is the capability for any man to write or criticize any already written biography. The reflex attitude of all that has gone before, as it stands in the recollected consciousness, must be the point of view for every writer, reader, and reviewer of biographic literature. Every part stands in place and period related to every other part, and only in its exact collocations and concurrences can there be extracted any meaning, any interest, or any instruction. And just thus with the history of any age, or nation, or with the universal history of man and of nature ; each and all must have its one conscious plot of psychical connection in

time, place, and circumstance, with which every place, and period, and conjunct transaction, must have its correspondent consistency. No history quickens the interest of any susceptibility but in the clear cognition of its events in their cognate places and periods relative to the entire record of the transactions. That man has a psychical susceptibility is his one prerogative for a capability either to write, read, or find interest in any history.

SECTION II.: INTEREST IN SCIENTIFIC CLASSIFICATION. Facts of experience may be sorted according to cognition of likeness and difference, and be thus scientifically classified, and such classified arrangement of human knowledge is a very considerable portion of the work of science itself. To a large extent such classification has already been accomplished, and the resulting cognition finds beneath it a susceptibility quickened into deeply interested emotion. That experience admits of such orderly classification, and that the psychical faculty correspondingly attains it, may well excite a delighted attention. Every individual fact, dropping its peculiarities, is held in its species, and then the specific differences are lost in the genus ; those of the genus fall out in the order ; those of the order again pass away, and the assortment is held in the class ; and then these assorted arrangements run through the mineral, vegetable, and animal kingdoms, all finding man in his psychical understanding crowning the whole, and holding in his reflex retent the exactly arranged catalogue. All this should not be fairly recognised otherwise than with grateful admiration. It would be unmanly stupidity to find all this done for us, and we not to wonder and to praise.

But the susceptible feeling must not transcend the tried cognition. Hitherto all testing experiment shows that the transitions from species to the higher genera are very unequal, some closely succeeding and others widely severed, so that quite large leaps must be made and broad gaps left open in the classifying

process. A presupposition of long eras intervening, in which the missing links were all supplied, but have since become extinct, and their fossil remains have also perished, will be utterly inadmissible for a truly scientific interest. Scientific interest rests only in tested facts, and until these fill the chasms, no supposition however plausible can render science any assistance in leaping the gaps which are thus left open.

Beside the psychical interest in tried scientific classifications, there is much pleasant feeling derived from classifications for convenience, or utility, or amusement. The psychical faculty is largely active in arranging objects of all varieties and uses simply in accord with temporary conditions and circumstances. And many an uneasy mind finds quiet satisfaction in putting things together in places, and classes, and sorted arrangements from considerations of very trivial importance. They are as really settled in their arrangement by the psychical faculty as when it works by careful experiment, and in the aggregate the amount of pleasant and restful interest thus found is quite incalculable ; all, however, to be credited to the psychical susceptibility we are now considering. But all, the more as the less important, are found to prove more or less unsteady and unsatisfactory ; domestic arrangements, home conveniences, business employments, and social attachments all take on other forms, some gradually, some capriciously, some from a more cultivated experience, while some hold on from year to year by the mere conservation of habit. The understanding has only what *has been* for its directory.

SECTION III. : INTEREST IN THEORETIC INVESTIGATIONS. The field of the psychical consciousness is solely the reflex of past observation, and for the psyche the ultimate standard is the tested stability of experience. What things have had a uniform collocation of properties and an invariable order of changes are the sufficient data for the deduction that such uniformity and invariability for the like things will continue in the future. The

antecedents are taken as causes for the consequents, not on account of any cognition the psyche can attain that there is any efficiency in the antecedent, and only on account of the infallibility of the facts in the past. The psyche, as such, cannot have its susceptibility affected by any feeling from the cognition of cause, further than the precise cognition that this antecedent has been ever in such an order to such a consequent.

Here, then, is the occasion for theoretically interested feeling. We settle what will be from the order of what has been. We lay down the tried fact as a theory, and when the consequent is deduced as sure, the susceptibility is interested at once, is curious to see the event if not quite satisfied, and is calm and confident in feeling when conviction is scientifically settled. Hence the interest in theoretic disquisition; every man is fixing his theory according to the conviction attained at his standpoint, and is susceptible to feeling just as his psychical capability of cognizing has prepared for him. He will be curious, or skeptical, or confident, and will therefore feel just as his knowledge permits that he should.

Up to this point we have been able to keep up a pretty steady conviction for the stability of science on the ground of trying over old experience by new and more careful experiment. We have rested in this test of scientific carefulness upon due repetition of the new trials. But this stage of examination into the feelings of the psychical susceptibility begins to trouble us. There are so many theories, and on important interests, and by so many apparently competent judges, and yet so diverse, and perhaps most of them so sanguine and earnest, that we begin to question to what issue we are coming. All are earnest and many are honest for the truth, but how various! What is truth? Quite different theories are held of family regulation, of civil government, of ecclesiastical polity, of the origin of religion, and the truth of it in its very nature. These theories have their respective susceptibilities, the feelings of which are not appetites,

nor sympathies, nor desires, nor passions, but are by eminence *sentiments*, such as love of home, patriotism, church fellowship, etc. These are excited in the susceptibilities by the interests involved in the recognized institutions and their established regulations, and the institutions to which these sentiments relate are the most prominent and important concerning which any theories can be formed.

There may, moreover, be speculative theories in reference to the standard of judging and the estimates attained concerning many practices in social intercourse and the business of life, wherein the transactions themselves give character to the actors ; such as matters of policy, prudence, economy, honor and honesty, friendship, philanthropy, charity, and even the wide field of virtuous sentiment that lies under the sanctity of the marriage bond. Science is testing all these important matters, and with a freedom and earnestness and boldness which give assurance that it means to see the end. What is to be the ultimate outcome? Just here the susceptibility to feeling is very different in different minds, but assuredly in all, the susceptibility is precisely as the intellectual capability fits them for, and determines them to possess. The psychical faculty is therefore itself first to be tested before it may be made the test of ultimate convictions. We are really now at the very point in our psychology where we may get an enlightened view of just what the psychical susceptibility is competent to feel.

SECTION IV.: HOW FAR SENTIMENT IS VALID IN ABSTRACT LOGIC. In abstract logic, or the logic of permanent conceptions, the abstraction may legitimately be carried to the highest class that has scientific reality. Thus, we may abstract a conception exclusive of all real empirical species, then in the same way another exclusive of all genera, then of all orders, and then of all classes in like manner in every kingdom save the class of humanity, and the abstract conception will then be that of *man* in common ; and this may further be abstracted by leaving out

all human properties save the highest faculty of the psyche, as we here hold it in cognition. This last and highest abstraction that we can make where we now stand, will extend to all that has been excluded, and will be a conception to which the exclusives will all be auxiliary. The abstract conception would be voucher for their reality, and they, and only they, would just fill the abstraction and give meaning to the conception. This highest psychical conception would be a valid basis for a theory of family economy, or social community, or state sovereignty, as elevated as a psychical faculty can conceive, and beneath this there may be a psychical susceptibility with as pure and warm feeling of domestic affection, or social philanthropy, or patriotic integrity, as a human understanding can think. But the conception could give occasion for no higher sentiments. From nothing here recognized could there be a susceptibility for Christian fellowship or religious devotion. A higher faculty must open the way for the sentiments of religious unity and divine worship.

It is also further quite conclusive that no imagined series and degree of abstraction and generalization can be scientifically tolerated. We might suppose species and genera so close in order that there shall be no gap throughout, or that there be an imagined ascent to *pure being*, as an abstraction extending to all possible being, but this could in no case have any scientific value, nor quicken any interest of real sentiment in a susceptibility earnest only for true feeling. No matter what imagination may invent or picture, if a testing experiment cannot be made to try and sustain the theory and the sentiment, all else is utterly impertinent.

SECTION V.: HOW FAR INTEREST MAY BE SUSTAINED IN THE LOGIC OF CHANGING CONCEPTIONS. Quality may be definite and pass beyond its limits and become quantity, and the definite quantum may be extensive or intensive and specific, and the specific may qualify the extensive at a determinate rate in a

given measure and there change the old quality to another conception, and the essence passing the measure may in similar modes be further qualified and changed till the essence shall pass on into the measureless, and thus beyond observation. There will, in such process, be logical occasion for theories of objective substance and properties, cause and effect, action and reaction ; and under these recognized theories there will be susceptibilities open to deeply interested feelings both in reference to practical and scientific issues. Since, however, the process of qualifying, and thus of changing the conceptions through the intervention of specific quantities, begins with mechanical forces working material changes, we are checked in the course long before we get to any experiments with living spontaneities. The levities working with and in the gravities and pushing on with polarities and chemical equivalents and affinities, come to a terminus in a dead-lock before living spontaneity begins its perpetuated assimilations and reproductions ; and then there comes the death of living individual organisms before there is any experience of mental action and psychical intelligence.

The matters change, but as their essence, even when it has passed away from sense-perception into the measureless internal of the understanding, is still material and mechanical only, and as we are obliged to think it as still in a resisting antagonism that must solidly block or diremptively explode, the pleased interest passes away into the torpor of inertia or the shock of a catastrophe.

If we attempt to make the mechanical pass over into the vital, and then into the psychical by an assumed or presupposed generic process, and then force the psychic into union with the thinking as its auxiliary, and make the two to be rational *actuality*, we still only open the way to an interminable idealism. We shall by no possible method of working the internal essence through any continual process of change in specific quantity to

higher and richer quality, gain an entrance into absolute art, religion, and philosophy, that will admit an applied test of scientific experiment.

SECTION VI.: INTERESTED FEELING IN THE LOGIC OF LIVING SPONTANEITY. The two preceding theories of logical connections lose much of their former interest, since they are now found to fail completely, from their inherent incompatibility with the requirement of a continued process. They shut themselves up by their own action ; the abstract logic by its unavailing generalization, since its highest abstraction must be mere surface, having outside only, the changing logic by its ultimate deadlock or breaking up in fragments. They cannot be used for a completion of empirical science in an exact system, for the former cannot stop its perpetual repetitions, and the latter cannot perpetuate them far enough. We must perforce withdraw all confidence in them as competent scientific instrumentalities. We can use only this last logic of spontaneous life, and shall not find any theory beyond it, and we wish here to see just what interest it is susceptible of imparting.

We have found it in tested experiment, actually connecting common experience through all the species and genera of the three classified kingdoms, the mineral, vegetable, and animal, and then lifting science up into the sphere of the human psyche, and leaving both the beginning and terminating ends of its process fully open for either further progress or regress. The conception is peculiar, being two-sided, one the complement of the other, and neither of any signification except in the fellowship of both. One side is the material chemical equivalents of carbon, oxygen, hydrogen, and nitrogen, and the other side is the living spontaneity, and while ordinary chemical action is binary, this living chemistry, sometimes in ternary and often quaternary combination, builds up its organisms, maturing the individuals and reproducing their kind through coming generations. Testing experiment finds the work done in con-

necting mechanical matter with plant life, then in sentiency with animal life, and then in psychical intelligence with human life. We know matter, and instinct, and sentiency, and the human psyche to have their connections, though no testing experiments can show whence either the mechanism, or the spontaneous instinct, or the sentient, or the psychical activity may originate. We well know these facts, and that they so occur in concert and co-agency that there is no hindrance to their ongoing, nor opportunity for questioning that they may have been indefinitely foregoing. Common experience is thus classified through its whole occurrence within human reach, and all is open to further foreknowledge and coming knowledge. Thus while theoretically nothing more is needed, under such a theory there is the susceptibility for the strongest confidence and the deepest interest that thought can give or the psychical understanding can receive. The psyche is in its nature held within the reflex of the past, and its feeling cannot transcend this.

But while this is all the understanding can ask, and all that science can get or give, it is not all that humanity seeks, nor all that humanity needs. With so much only, the door is forever shut against all cognition of the source of experience. Whence come matter, life, sense, thought, and whereunto are they to go? Man knows that he has a susceptibility for feeling which lies far beyond the range of these psychical theories and the cognitions they can gain, and he has the irrepressible conviction, that if this is all that he can know and all that he may interest himself in and with, it would have been better for him that he had not known so much. To stop here is to smother within him his higher and better aspirations, and he knows that this he cannot content himself to do, and even more, that he ought not to allow that such a claim can righteously be made upon him. His very being is a cheat and a delusion if he have not truly within him another and higher faculty which is urging these aspirings, and which may help to answer them. As we have

already found in the intellect the reason beyond the sense and understanding, so we now find in the susceptibility the discontented struggle to reach higher interests and sentiments than merely logical theories and thoughts can gain, and we need but to bring the susceptibility under this higher light of reason, in order to at once find the higher feeling awakened and the higher sentiments glowing within us. There is a higher sphere of feeling as well as of knowing in man's endowment of reason.

CHAPTER III.

THE RATIONAL SUSCEPTIBILITY.

WE have already found the Reason as the highest intellectual faculty which, beyond all psychical deductions from facts, can make a valid induction of antecedent efficient causes in order that such facts themselves might thus exist. And here, as in both the sentient and the psychical susceptibilities, the same law prevails, that the cognitions have under them a susceptibility to feeling corresponding in elevation to their own importance. We shall find four sorts of such feelings varying as do the cognitions which respectively awake them.

SECTION I.: *ÆSTHETIC EMOTIONS.* In all visually observed objects rays of light have passed into the eye, and the colors have been defined, distinguished, and united, and the meaning of the collocation of colors, with their figure, has been consequently obtained. So also in all audibly observed objects, waves of air have passed into the ear, and the sounds have been in like manner attentively defined, distinguished, and united, and the meaning of the collocation of sounds comes in consequence of the sense-construction. And then, when the sights and sounds have passed from their presence in sense, and have

become the reflex retent of the past in remembrance, the understanding has re-collected them in their logical order, taken them in their conceptions, and gained their meaning in formal judgments in consequence. All the knowing has been the consequent of the previous transactions, and then these judgments in their meaning, as uniformly occurring in experience, are taken as the data for coming logical deductions. All is within, and since, and resulting from, the cognizing process. But just here the higher cognition of the reason comes in, and from the insight it has, by its superinduction upon them, of all the transactions within the sense and the understanding, it makes the authoritative induction that all this meaning must have been before, and must have come in through these ethereal and aerial vibrations which have respectively entered the visual and auditory organs. If these had not been exactly thus modified, their signification could not thus have been cognized.

But this significant meaning only finds its place in æsthetic art as it carries with it some sentiment of deep interest to humanity, and as such sentiment also finds its expression in a pure form, attainable only through the etherial or aerial vibrations which are the media of communication for the visual or auditory organs. The touch may pass over the smoothest cabinet lines or the softest velvet, and the running contact may be very clear and very agreeable, but the touch can get no sentiment in recognition. The taste may have its genial sweetness or its gentle pungency, and much art may be expended in culinary delicacies, but it will reach no sentiment, and will at the best be merely useful and not ornamental; and, also, much care and skill may be exhausted in the preparation of costly and grateful perfumery, but no genial odors will carry in or with them any human sentiment. All other senses than those of sight and hearing are too clumsy and coarse for the employed instrumentality of the fine arts. The requisite pure forms can be transmitted only through the modified vibrations of light and

air. Pure sentiment in pure form is, in some variety, the only recognized ingredient in æsthetics, and such sentiment can only be an induction of the reason as precedent to and in order for the kindling of any æsthetic feeling. And this is just what the artist seeks when his genius is set to the creating work, and when he puts upon the least obtrusive material the fairest forms of the pure ideals which dawn upon him. The painter or the sculptor gets his clearest-cut outline and surface in picture and statue, and the musician his purest tones in exactly-uttered tune, in order that the *beau ideal*, as he beholds it, may truly and fully pass its way in the modified media to the recognizing organs, through which it first awakes the susceptibility to the conscious love of Beauty. This artist's creation is his perfected expression of the ideal, which, for him^{and} for his admirers and critics, can have no recognition but in reason. The feeling induced is solely within the susceptibility that is under the cognition of reason, and is independent of sense-observation or reflective deduction, except as the ideal form must be put on some material for its preservation and expression ; the ideal being valued and contemplated for its own sake, and not at all for its sense-embodiment, or for the attainment of any sentient interest. To possess and contemplate the ideal beauty in the insight of reason is full satisfaction, and to commingle with this the gratification of some lower appetite would degrade the beauty and debase the susceptibility and disgrace the rationality, as a profane mixture. In the æsthetic sphere the pure ideal must be immovably at the centre. The common human mind may be cultivated to the attainment of this æsthetic taste, and especially the scientific mind may already have the dawn of such susceptibility to beauty, but the true appreciation comes only with the distinctive recognition and use of the supreme endowment of man with reason.

SECTION II.: PHILOSOPHIC EMOTIONS. Human experience has been constant and long in its observation of the things and

their changes on earth, and of the luminous bodies and their movements in the heavens. The senses have perceived their present forms and positions, and the remembrance has kept them reflected from the past and has re-collected them in the uniform collocations and order of successions they have manifested, and from the invariable order of nature the deduction of the laws of nature has been made, and the ongoing of the future is to be empirically determined from the steadfast course of the past ; and though we can know nothing of the intrinsic efficiencies in nature, the observed order of antecedent and consequent, as fact in experience, is itself to be taken as inflexible law of experience.

But reason, superinduced upon sense-observation and logical re-collection, and with a clear insight of their working and result, has attained for itself not a contradictory but a higher and surer mode of cognition, determining that the order of nature's facts is regulated by antecedent causal efficiencies, and that the truth of nature's law is induced in what is already a sufficient cause for the fact, and can by no means have the authority of law when only known as deduced after the fact. In reason's insight the truth of sufficient cause in things on earth and in the heavens precedes the experience and is necessary in order to the experience. The pure form and force of the true already is in the reason or it cannot come in the sense.

The Earth with its place and relations in the planetary system has been found by carefully-repeated observation, and the forces and forms of the entire solar system as now recognized have in like manner been well ascertained. This has been by the organ of sight only, assisted by competent instruments. No other senses can have applied their ministrations. If there be the music of the spheres, the human ear has not had the recognition of it, and neither touch, taste, nor smell can have had any subserviency to this end. The sole media have been the variedly modified vibrations of rays of light to the eye and its responsive

attention to and construction of the respective bodies, motions, places, and periodicities, while, by patient re-collection and reflective calculation of these retained observations in the understanding, the forces and forms of the solar system, as facts in their order of experience, have been discovered. But the insight and oversight of reason, through and beyond all this transmission of modified ethereal vibration, admits of no question that these pure forms and forces already had their true being and gave their modifications to the transmitted light, or the receiving and attending organ could have attained no recognition of them. The reason has no deductions after the cognized facts, but it has an unhesitating induction of pure forms and forces antecedent to and causal for the observed experience. To the reason the true already was while the intermediary light was passing and the attending spontaneity was defining and uniting.

Here then is more than any logic deducing from experience, even a rational philosophy that accounts for experience. The pure force and form the reason sees to be already, and under this capability of inductive cognizing is a susceptibility for deeper and purer emotion than any deductive cognition can supply. The pure force and form now are, and they also exactly concur and correspond with, the cognizing co-agency ; the objectively true and the subjective receiver of the true truly grasp and interclose each other, and the whole known truth is completely this, that in the reason the True both is and is fully cognized. And so the susceptibility here excited is adequate to the full feeling due to the highest interests of universal human experience. Here we have in view universal Nature and universal Humanity in their complemental integrity, each existing for the other and neither existing for an intelligible purpose without the other, but both together making the unity of all objective and subjective being, the known and the knowing, and all in perfect consistency and correspondency. The feeling induced is that which belongs to the highest Philosophy,

viz., the love of wisdom, or the love of the true. Nature and Man, when viewed in finite reason, make up a harmonious universality, with no other bond save only its eternal allegiance to the Absolute Reason.

SECTION III.: ETHICAL EMOTIONS. Man as sentient has appetites but no imperatives, and as psychical he has judgments and estimates, but no original rights. He knows the order of nature's changes, but no claims of nature on him nor he on it. But Man endowed with reason has a quite different standing. The reason has an insight into itself, and knows itself, not relatively only as distinct from animal being, but directly and particularly in its own prerogatives and capabilities. The spirit itself knoweth the things of the spirit; its own spirituality, and in this its intrinsic dignity and excellency. In thus knowing itself, it knows what is due to itself; what it has an absolute right to claim from others, and what is the inherent behest of its own being that it should do for itself. Reason is thus ever *autonomic*; carrying its own law within itself, and, from what it knows itself to be, reading its own law upon itself, and binding itself at all times to act worthy of itself. That it should in any way deny itself, and act for some end other than the worthiness of reason, would be to degrade and debase its own being, and thus to make reason no longer reasonable. This gives an ultimate right quite other than the useful and the prudent. By generalizing what *is*, we learn what is useful and thus what is prudent for ourselves, and what is useful and thus what is kind or benevolent for others; but we cannot thus determine that which *is*, and from the generalization of which we get the prudent and the benevolent, to be right, and cannot thus say that either prudence or benevolence is a virtue. If nature is not as it should be, then its working is to be resisted, and as far as possible counteracted, both for ourselves and others, no matter what injury nature thus working wrongly may do to us or others for it; *i.e.*, no matter, as nature wrongly is, how imprudent or

unkind our resistance of it may be. But by the direct insight of reason into itself, and seeing what is due to its own excellency, we find at once the law written on the heart, by which we can judge of all experience in nature, whether it be such as it should be, and thus whether prudence to ourselves or benevolence to others, in following out the generalizations of nature, are virtues or not. The ultimate rule is determined, not by the inquiry, What may the endless ongoings of nature do for me? but, What does the worthiness of rational being demand of me?

Such rational insight awakens its pecnliar feelings, in which no animal perceptions nor judgments according to sense can possibly enable us to sympathize. We may have all the feelings which prudence or kindness involves, through the excitement of our sentient susceptibility, — for the rules of prudence and kindness may be determined by just such intellectual operations as the animal can perform, — but we can never have the feelings which the ultimate right occasions, except as in our rational being we have the insight to find the absolute rights of reason itself, and therein see what its own excellency demands. All the former are solely economic emotions, and are of the animal nature ; the latter only are ethic emotions, and are of the rational susceptibility.

And still further, while the reason in man is cognizant of itself and of its own true dignity, and thus knows what is due to itself in its own action and its intercourse with other rational spirits, it also knows that it is set over the sentiency and the psyche as the supereminent faculty of the man to be their authoritative regulator and ruler. They are one in it, and it holds them in allegiance to its sway on its own authority, and as the rightful prerogative of its sovereignty. And it knows that it must hold all perpetually in strict subjection at the responsibility of its own integrity. It subjects itself to its own reproach if it permit any faculty or any feeling in the man to put itself beyond the control of reason.

This full cognition of its supremacy necessarily awakens beneath it a susceptibility to feeling otherwise unattainable and always paramount. Every other susceptibility is to keep its feeling within the constraint of this, which takes feeling under the direct knowing of reason itself. Just as the primitive consciousness was found to be a *knowing together* of object and subject, and that cognition came in at their discrimination, so here, this susceptibility we know now as Conscience is a *knowing together* of reason's claim and reason's right, and the distinction of these is at once the cognition of the man's obligation to the right rule. *Duty* is at the same time a due *to* and a due *from*, and in the man endowed with reason each is the complement to the other, and neither has meaning without the other. The Ethical feeling is love, in the sense of allegiance, to the Good, or to the Right, and this bond is upon all rational Humanity.

SECTION IV.: THEISTIC EMOTIONS. The animal eye can perceive the phenomena of nature, but as there is no insight of reason, it cannot comprehend a God in nature. Inasmuch as to animal being there can be no theistic perceptions, so to it there can be no theistic emotions. But in the things that are made, the rational mind of man sees the eternal power and Godhead of the Maker. Nature is comprehended in a personal Deity, who originates it from himself, and consummates it according to his eternal plan. Such recognition of a God at once occasions its own peculiar emotions. Feelings are awakened that could arise from no other object in the insight. Man from his conscious weakness and helplessness is obliged to feel his need of such a full source of supply, and his utter dependence upon it. In God alone he lives and moves and has his being, and is utterly empty without this unbounded fulness.

Without including here other feelings than such as are necessarily awakened by the apprehension of a present God, it is manifest that such a rational insight must lay its foundation in

the mind for its peculiar rational susceptibility. Not only can no perceptions of sense enkindle these emotions, but they differ also from such as are awakened by the apprehension of beauty, or truth, or ethical right. They make the man, in his very constitution, a *religious* being. He must feel awe and reverence, and entire dependence, in the presence of Jehovah. The very source of all beauty and truth and right is here, and thus the Absolute Good is known, and in this is an occasion for faith and love and worship, when the willing spirit shall joyfully yield itself in full devotion. Such apprehension of the Deity as furnished by our rational capacity alone, necessitates, in wicked as in holy men, the peculiarly constitutional emotions we here term theistic. Without the insight of reason, as revealing God in nature, this susceptibility could not be, and with such an insight and revealing this distinctive susceptibility must be. Man can no more divest himself of his religious nature and responsibility than he can of his ethical being and obligation. The comprehensive feeling in Theistic Emotions is the love of the Holy, or the Absolute Good, and it opens to human reason its purest communion.

Now, in all the above sources of Rational Emotion, *Æsthetic*, Scientific, Ethic, and Theistic, we have a wide sphere of susceptibility altogether removed from, and elevated above, the sentient and the psychical. And it is necessary to observe, in conclusion, only this, that the urgency to action in all the rational susceptibility is wholly and consciously different from that in either the sentient or the psychical susceptibility. The animal nature craves, and makes the man uneasy and unhappy in his want, and forces his activity for a supply. He must *work* to relieve his want; he must get happiness only through *toil*. But the rational nature knows no uneasy cravings, and demands no toilsome work. It seeks not to devour its object, but simply to contemplate it; not to use it to the end of filling "an aching void," but to keep it as having perpetually a serene complacency

in it. The action that goes out towards it is ever cheerful and glad, and is thus known as the *play-impulse*. The soul goes out after beauty and truth as a delight, and seeks virtue and the worship of God as a blessed activity. The Beautiful and the True, the Right and the Good, are taken themselves as ends, and contemplated in their own dignity, and give full complacency in their own excellency, and are not to be degraded as means of gratifying any appetite, nor held as mere utilities for satisfying wants. Our activity is spontaneous and joyous as it terminates in either of them, and is never to become the forced and irksome toil of trying to make them subservient to us. The artist does not wish another to bring out ideal forms of beauty for him, nor the philosopher wish another to make up his science to his hand, nor does the moral man choose that another shall practise virtue for him, nor the religious man choose that another shall worship for him, and then give back the profit in some rewarding gratification. If our own complacency and satisfaction be not already in our virtue and piety, there can be no reward for us anywhere. Sense may get gratification by any barter, and buy in happiness at any market, but the reason has its end in the contemplation of whatever is made to correspond to the perfect paradigms of reason. We may have the love of the Beautiful, the True, the Right, and the Holy ; but the love in each must be solely for the object's sake, and is not to be sold in exchange for the gratification of some clamorous appetite.

We here finish our outline of the susceptibility in general which takes its feeling under the cognition of the general human intellect, with the retained notice that the subordinate susceptibilities and their respective feelings are ever correspondent to the subordinate faculties and their respective cognitions, and that the feeling prompts and guides the urgency and the energy which are executive of the ends of the knowing. If then we call the cognizing and feeling of the sentient susceptibility, the *sense* ; and those of the psychical susceptibility, the *soul* ; and those of

the rational susceptibility, the *spirit*; we shall have the distinctive executive agencies with their distinctive names characterizing their modes of working out their specific results. We may then use sense, soul, and spirit, as the executive agents which we are now farther to contemplate as we pass over into the next and now the last Division of our Empirical trying over of the facts of human experience.

THIRD DIVISION.

THE WILL.

BY a diligent but unscientific study of man, in Anthropology, we attained the common experience of Humanity ; and in testing this common experience by new trials, we found a spontaneous Mind capable of discriminating itself from its objects. The first objects known were those by perception and observation through the organic senses, the mind here being an agent termed *the Sense*. The second mode of knowing was by putting the mind itself under the past objects of sense and reflectively re-collecting them in logical order and deducing particular and general judgments from them, the mind here having been termed the psyche, or sentient *Soul*. The third mode of knowing was by an induction of what the insight of reason saw was necessarily precedent to experience in order that the experience should have been at all ; and this higher faculty of reason with which man was found to be endowed, was termed *Spirit*. By a further testing of experience, we have since found, under this capability of Intelligence, also a susceptibility for feeling which distributes itself in exact accordance with these intellectual agencies, the modes of feeling corresponding with the modes of knowing, precisely as they stand together in the sense, in the soul, and in the spirit. And now we have come to a third division of our testing of common experience over again, and must examine the executive satisfaction of the feeling and the knowing in the realized possession of the cognized and coveted objects. Much

then must our surprise, our interest, and our confiding conviction of the validity of our empirical science be heightened, if we find the executive will also to go precisely with the cognition and the feeling, and to show its energies with comparative freedom and efficiency, as it works in the sense, in the soul, and in the spirit.

Will may be comprehensively defined as *the energy exerted to execute the feeling of any susceptibility*. A carefully tested experiment of the distinctive modes of exerting such executive energy in the three agencies of the sense, the soul, and the spirit, will give a clear and full apprehension of the whole province of the will in all its varieties. This will be done in the first chapter of this third Division of our Empirical Psychology, and the further elucidation, confirmation, and classification will be adequately noted in several successive chapters. The problems concerning the human will are of the deepest import.

CHAPTER I.

DISTINCTIVE MODIFICATIONS OF EXECUTIVE ENERGY IN WILL.

THESE modifications will be found in the distinctive agencies of the sense, the soul, and the spirit; and that of the last, or the spirit, will have its three distinctive subdivisions.

SECTION I.: THE EXECUTIVE ENERGY IN THE SENSE. We have in the sentient susceptibility found its feeling to correspond with its cognition. When instinctive hunger or thirst has been gratified, and the object gratifying and susceptibility gratified has each become known, there follows afterward, when the object is again present, or the instinctive want again arises, a distinctive feeling known as appetite; and then, when appetite

is awakened, we find there is also an impetus toward the object in the end and interest of its possession for a new gratification, the urgency to get being in proportion to the anticipated gratification. All excited sense-susceptibility may be termed appetitive, and may thus be apprehended in common as all having the same mode of executive energizing. All the promptings of the organic senses, and the excitement of the natural affections and sympathies, even such as are called disinterested, like pity or kindness, are as impulsively direct and intent to their objective end as is awakened hunger or thirst, and may as passionately impel to exertion proportioned to the excited energy. When there is but the appetitive feeling the energy goes out in execution with no alternative, and the intensity of the appetite is the measure of the urgency toward gratification.

The sense knows and feels only in the present, and has no retent of the past in orderly connection of place and period, and can make no reflective deductions and conclusions as logical rule for future emergencies, though the animal has faint and vague impressions of recent past experiences which, in some of the higher orders of animals, check and modify the receiving appetite, restraining its gratification, or even wholly suppressing the feeling. What has been observed is also sometimes surprisingly used to elude pursuit, or cunningly decoy a victim and craftily deceive an enemy, but at the best, the sense can only teach for the occasion, and can only change its action according to the occasion. There is often a judging according to sense in the presence of the object, but no capability to deduce logical rules in abstract reflection for permanent practical operation. As the feeling at the time is, such will be the urgency, and the given conditions will answer the consequent gratifications. There is no opportunity for self-determination or alternative election, but the change of action or habit must be only by interposing another appetite, or overcoming the present desire by some opposing aversion or stifling fear.

Appetitive execution in gratification is brute-will only (*brutum arbitrium*), and can never give to humanity proper moral responsibility.

SECTION II.: EXECUTIVE ENERGY IN THE SOUL. The same mind, as psychical understanding, which in reflex action has logically conceived and judged all sense-phenomena, can now take these last attained appetitive gratifications, and logically, judge them as it has done the other phenomena according to the uniformity of experience, and by applying the test of new experiments may scientifically ascertain their reality, and also estimate their comparative and collective valuations. And such scientific estimate will give occasion for a new mode of executive energy, which will be a distinct form of will from that last attained in the executive energy of the sense.

Re-collecting his past gratifications, and enjoyment of sensible objects and occurring events, one can determine by honest estimate the less or greater pleasure received in these experiences himself, and tested by common experience can also determine what may in future be anticipated as attainable enjoyment in their repetition by himself or others, and can thus find a general standard of values in happiness for the varied forms of sense-indulgences. According to the ends in view in making these estimates, he can have his rules of policy, utility, prudence, convenience, economy, etc., and thus by very safely estimated general deductions and conclusions, he can come to the regulation of common experience as individual, family, social, state, and general philanthropic interests require. And having thus carefully attained the general rule, the man as individual, or as a member of any community, may adopt such rule as his own maxim for life, or in association with others act with them in common, both in personally obeying and publicly upholding the regulations it imposes. In any and every case there is the careful attainment of the rule, and then the sincere adoption of it, and in both there is literally the making up the mind to it

deliberately and decisively. It is an executive energy both in thinking out the rule, and in putting the ascertained rule over the life and conduct, and so in each it has been a form of will, and in some respects, at least apparently, quite a different mode of will from the mere executive of appetite in the sense. In the attainment of the rule there was the freeing of the mind from all bias, and in the adoption of the rule there was the exclusion of all hinderance, and to such extent there has been *free* will. The rule has been honestly gotten, and sincerely taken, though thus far it has been in the *mind* rather than that any *soul* has been it. It has been more dry intellect than ardent feeling, but let it be the patriarchal soul in the family, or the patriotic soul devoting his life to his country, and we have at once all the emotion sufficient to manifest that the will carries a soul and not merely a mind in it. The man with such a will has become truly a *living soul*.

And yet, living soul as it is, it lives only in and for the sense. It seeks appetitive gratification as eagerly as does the brute-will, differing only in this, that while the brute-appetite deals only with the retailer, this buys in by the wholesale. It takes in all past experience, and makes its estimate of it as a totality, and taking it in the long run gets all it can of sensual enjoyment. The greatest happiness on the whole is to be gained, and at the least expense, and so it is more thoughtful, more judicious, and a safer calculator than the hasty voluptuary who catches at every pleasure that is offered. But, when the time for the wholesale purchase has come, the calculating soul is as much the bond-slave of appetite as the passionate sensualist, and can no more resist the best bargain than the voluptuary can deny his hourly temptations. The higher happiness has no alternative in any lower offer, and the quickest bid is then the most prudent.

Nor has the soul as emotional any worthy prerogative over the mind as dryly intellectual; for the emotional life of the soul is only the gladness of sensual enjoyment, and the most pater-

nal or patriotic devotee to family or country, in the interest of sense-indulgence only, is capable of neither self-respect nor of public honor. Whoever lives only in pleasure is dead while living. No sentiments are cherished by such a one but those which find their spring in appetitive interest, and all calculation and estimation of good are on the side of sense-indulgence and highest happiness. There cannot be any appeal to honor and dignity, and thus there can be no executive energy but to the end of highest gratification. There is the calculating mind, and the test of scientific experiment, and so the executive energy is above the mere animal appetite for present indulgence, and is human (*humanum arbitrium*), but as it is of "the earth, earthy," and "minds earthly things" only, this human will serving the sense alone is yet an enslaved will (*servile arbitrium*), since it loves and never leaves its bondage to the flesh.

SECTION III.: EXECUTIVE ENERGY IN THE SPIRIT. As we have used the word *soul* for the understanding in this chapter, so we now use the word *spirit* for reason, inasmuch as spirit will include the reason, both as intelligent and susceptible, just as the soul included the understanding, both as intelligent and emotional. The word *mind* may be used in connection with the sense, the soul, and the spirit, rather by accommodation to each respectively in its own province, than that it can be made comprehensive of them. Some care in noting this precise application of terms will prevent all ambiguity while it will permit us to use less amplification.

Spirit, in human experience, is ever a superinduction upon sense and soul, and, necessarily in unity with them, it thus modifies their action even when its presence is yet unacknowledged. And so also, in human experience, the superinduced spirit acts through the sense and the soul, and not in its own pure simplicity. The sense observes and feels, the soul *deductively* thinks and feels, but the spiritual insight of all this sees that a causal being must have preceded it, and *induces* this primitive

being as that without which neither the sense could have observed and felt, nor the soul could have so thought and felt. This primitive being, the spirit knows as the adequate cause, or the sufficient reason for both the sense and the soul experience. But the human spirit does not get this adequate cause and sufficient reason except by its insight into the actual experience. It does not say : I independently see the primitive, and from it deduce the sense and the soul experience ; but just the opposite : I look into and over the experience, and then I know what was before the experience. It is *in*-duction, *in*-ference of what truly was while as yet the experience had not been, and yet the human spirit did not know what previously was till the experience came, and the spirit had its insight of it. While the soul only *de*-duces from the invariable order of experience, the spirit *in*-duces that which previously was and which has made this order of experience invariable. Not that the human spirit is independently prophetic, but that it is authoritatively and invincibly *in*-ductive.

And now this is the very truth we wish here to exhibit and establish in the will of the spirit. It has its three distinctive modes of executive energy, each of which inductively takes along with it its own authority in its own way of induction, and with so clearly inherent a title to its assumed prerogative that all questioning becomes intolerable in its own absurdity. Experience itself has no validity except in its origin from a sufficient reason ; and to make its naked facts, even in all their assumed uniformity and invariability of orderly succession, a basis for deductions that are to disprove reasonable *inductions*, is at once self-destructive.

1. *The Aesthetic Will.* — While the artist is intently working at the matter he is moulding, his absorbing design is to put upon it the form which in full measure and proportion he has brought to it ; but this form is not that mere surface shape that will be given to his matter, for he will strive to so fashion it that

it shall express itself as the product of a living energy bursting out and pushing up from within the matter itself. Whence has been attained that living form? The answer may be, that he found it in nature, and took it from some one of the many living organisms that have come within his experience. But this one form has been multiplied beyond number in the many individual organisms of its kind in the present age, and thence backward through all the successive generations from the beginning, and we again ask with greater earnestness: Whence have come all these like forms of all past generations? Few among them all can be found in which the practised eye will not detect some distinction and some imperfection, and yet the form will appear more or less clearly in them all. The rational spirit knows that these specific individuals could not all have come up from nothing, and gone out again in nothing, and just as well knows that simples which have no forms have not been collating and recollating themselves into these specific forms by hazard integrations and disintegrations. The like form could not have perpetually come out at the end if there had been no precedent form. The perfect paradigm of them all must have been at their beginning.

This form in the statue, which may be turned round and found full and exact on all sides, the painter may take in some one point and put upon his canvas, and add to mere light and shade all the expression of living color, and any observer may go out and around some specific organism in nature, and find the one specific statue-form with its canvas-color on all sides in every individual of the species he shall choose to examine. Whence all these living statues colored on all sides, but from some original form more perfect than all of them?

But mere living form, fresh colored and full on all sides, is by no means all or the most important lesson that æsthetic art teaches. High art has no satisfaction but in the expression of human or superhuman sentiment. The artist may be within his

province in giving completely mere living form, and especially in representing the striking sense-feeling of animal forms, but high art demands the exhibition of thought and feeling in sentiments of which none but rational spirits can partake, and these expressed sentiments must be in their exactly appropriate forms. Whence, then, these forms for high art? Surely only as the rational spirit has already been, that it may communicate the sentiments, and that other spirits may read them in the forms given to them. To both sentiment and form the spirit itself must be the original. High art cannot grow up from sense and soul to spirit. Only spirit can participate in it, and even spirit only can catch and communicate the meaning of low art, which yet must have only pure form for its original. Moreover, the same sentiment can be given in picture form or in modulated tones that make the formal tune, and the picture itself can be so toned up or down that it seems to speak to the sympathizing ear as if uttering the sentiment discriminately in major or in minor key. Such complication of form and sentiment in harmony can be recognized neither by sensual appetite nor by calculating interest in happiness, and can find neither explanation nor appreciation by any other faculty or susceptibility than those with which man is endowed in his rational spirit. The pure beauty is beyond sense and soul gratification, and is only for spiritual possession, but for the rational spirit it is priceless, and can be sold for no amount or duration of happiness but in conscious debasement. The spirit is thus competent and authorized to reign supreme over the entire province of æsthetic art, and both can and should exclude all appetitive competition with pure taste and the love of beauty for its own sake. When the spirit thus reigns nothing brutal nor servile can force itself upon the soul, and thus, in its own domain of art, the executive energy is freed from sense-domination, and its standard and rule of taste is changeless, and a thing of beauty is to it a joy forever.

2. *The Philosophic Will.*—The sense and the sentient soul work only within experience, and all cognition and feeling and executive willing are entirely circumscribed by what has been beforehand observed and subsequently re-collected and put in logical conceptions and generalized judgments. The furthest and highest reach of empirical science in the field of sense-experience is the deduction of what will be from the invariable order of what now is and has been, and its only possible conception of the connections of cause and effect is the fact of this invariable uniformity of antecedent and consequent, exclusive of all consideration of the manner of their connection. To science, cause is no conception of efficiency, but only invariable sequence as fact. On the other hand, rational spirit sees through and over the fact, the causal efficiency that binds the sequences and makes the fact. It knows the causal forces were already in being before the sense-observing, and that their exact correspondence with the observing activity, alone made them perceptible in the common experience. In this position above experience the rational spirit cognizes and expounds experience itself by its own *inductions* of the antecedent facts, and not by any *deductions* from the order of the empirical facts. The modes of knowing in the sense and in the sentient soul can neither help nor hinder the spirit in its mode of inductive intelligence, and by no possibility can they comprehend or contradict or disprove the spirit's cognitions. Its capabilities and susceptibilities are utterly beyond and outside of those in the sense and the soul, and the spirit's executive agency is thus independently free from either their antagonism or co-operation. It loves and minds its own work in its own sphere, and will not be moved from its serenity and integrity by any ambiguities, or delusions, or seeming absurdities or contradictions that come only from the reflexive and refractive media in the lower region. The philosophic spirit knows fully the lower world of phenomenal being and its order of scientific testing, and sees that its

most careful and profound experiments and deductions begin and end in nescience, except as they gain ultimate confirmation and validity from its more authoritative inductive scrutiny.

Just, thus, as Art has its pre-existent and primitive Beauty, which gives and fixes its own sure standard and rules of Taste, so philosophy has its own Truth in the primal forces and causal efficiencies of Nature, which settle its order of process and establish its uniformities of collocation and succession, and only in the attainment and acknowledgment of these can there be any logic that is sound or any science that is satisfactory. A spiritual philosophy has thus its own open way to its own truth, and it must be to its own reproach if its executive will stops short of an adequate cause and sufficient reason for all human experience.

3. *The Ethical Will.*—The sentient soul, under the light and guidance of the rational spirit, we have now seen to have become competent to restrain itself in appetitive gratifications, by the love of the beautiful, so far as to keep itself innocent from indulgence beyond the rule of good taste; and then further, by the love of philosophic wisdom to keep itself from the dominion of appetite, so far as to adopt no sentiment or theory not sustained by adequate causes and sufficient reasons. We now come to a more stringent rule, and a sterner imperative against sense-indulgence, in the law of immutable morality, in which the dignity and integrity of the spirit superadd their authority quite beyond the rules of taste and truth, and subject art and philosophy themselves to the higher claim of self-respect and personal honor in the man's spiritual endowment. Any forfeiture in these spiritual prerogatives brings in at once the shame of guilt, and the biting back of the soul upon itself in remorse. Placed in the alternative of sense-gratification and self-approbation, the soul has an occasion and position which enable it to summon energies sufficient to beat back and hold in subjection every passionate susceptibility within the rule of

right as ultimate standard in all human action. In this alternative to any and all sense-urgency, the soul may, and in this only, can keep itself pure from sense-defilement and self-debasement. There can come no sudden single appetite, and no general estimate of highest happiness over against which the soul may not at once set the higher imperative of loyalty to its endowment of spiritual excellence. Even artistic beauty and philosophic truth must be held within the higher claim of the spirit to its own integrity. There can never come anything for the sake of which I may consciously debase my spirit and not feel for it guilt and remorse. Here then is the stable position in which the soul may stand steadfast against any soliciting or coercing attack, and in which it may find the point of security for what eminently is will in liberty (*liberum arbitrium*). The ultimate "power of choice" for man is in his capability to put his spirit's worth and dignity over against any temptation that may spring up in his experience.

This will in liberty has its exemplification in two varied modes of execution.

(i.) *As personal will.*—The soul is but the reflex of the sense, and can only deduce conclusions and make estimates from what the sense has already given. It may carefully test common experience by new experiments, but it cannot go back of experience to know whence that has come, nor by any testing of experience can it find whence the soul itself is, or what is its essence, or what the spring to its activity. It cannot thus get for itself, or give to itself, conscious personality. Only in the light of its endowed spirituality can the soul come to the recognition that it is a person.

The spirit is an "over-soul" and throws its own illumination into the soul, thus giving to it the capability to cognize much beyond what it has re-collected from sense-observation. If we change this analogy of imparted illumination for that of communication by speech, we shall note that the authority of the

spirit is literally personal, since it is as uttered mandates *sounding through* every chamber of the soul, summoning every resident faculty to regulate its executive activity by the claims of the spirit's dignity, and positively forbidding anything to be done which does not stand in full correspondence with spiritual worthiness and integrity.

The soul's conscience in the spirit will thus be precisely as its consciousness in the sense, a *knowing together* of object and subject, and these two together become actual cognition in their defined separation. In this uttered voice of the spirit, the soul at once gets spiritual authority and its own obligation ; the spirit's right is the soul's right ; the former's claim is the latter's obligation ; and in this *together knowing*, the soul has a conscience, and becomes a *person*, executing its conscious susceptibility by a will in Liberty.

(ii.) *This personal will must also become a religious will.* — In its full liberty, the soul yet knows that the endowment of rational spirit which it has, and by which it frees itself from the domination of sense, is but finite spirit ; and while completely sovereign in the individual, personality must still have its origin from, and be dependent upon, an Absolute Spirit which is also the Father of all spirits. To this God and Father of all, the individual soul feels that its finite spirit should be devoted, and that the majesty and glory of the Absolute should hold itself sovereign over all spiritual being. Each personal spirit must supremely reverence and adore the Infinite spirit, but this claim of the Absolute upon the finite can make itself felt by the soul in obligation only through the susceptibility in its own personality. It is the intrinsic imperative in the absolute that binds the finite, but the finite spirit must first know this claim and its own obligation to it together, as its conscience, in order to its apprehension of what is the demand of its own finite spirit upon itself, and that for its own worthiness' sake, and in the end of its own integrity it may fulfil the duty. It will debase itself if the finite

fail to reverence the absolute. Only as the claim of the absolute is loyally recognized by the soul, is any personal will properly a *religious will*. The religious will personally consecrating the soul to God is a *holy will*; the personal will subjecting every faculty of soul and sense to the dignity and integrity of the rational spirit is a *righteous will*; and the rule of right must control in the exercise of the religious will, or it can never satisfactorily convince the conscience that it is a holy will.

Just then as we have finished a scientific process of experience in the Intellect and the Susceptibility by the attainment of the higher faculty of reason, so we now complete a scientific process of experience in the will by this attainment of the higher endowment in the man of a rational spirit. This gives the capability of a philosophical exposition, but this is not here our work. We only aim to attain an empirical science, and by the fair test of new experiments in the will we shall find that human experience is everywhere indicating its conviction that man is free and possesses a will in liberty, and this gives the facts of experience classification and systematic unity, since even when it is not acknowledged, he everywhere is rational spirit. We thus leave philosophy to a further future prosecution, and try experience in Will, as we have done in Intellect and Susceptibility, solely by scientific experiment.

CHAPTER II.

SCIENTIFIC PROOF OF WILL IN LIBERTY.

SECTION I.: MAN EXERCISES SUCH CAPACITY OF WILL. In the foregoing Chapter we have attained a completed conception of a will in liberty, and now it is to be shown, in various

testing experiments, that the human mind is endowed with such capacity, and that man actually so wills. It has already been made manifest that the human mind has susceptibility like the animal not only, but also that man's rational endowment capacitates him for feelings quite above and other in kind than any animal can possess. Man is not left under the domination of appetite, with no alternative to the estimated highest happiness; he has the interest of taste and philosophy, and may free himself from the bondage of the animal in the open spheres of beauty and of truth.

But quite above all, he is competent to know himself, and thus to find the rule within himself that determines the ground of his duty to himself, his fellows, and his God. In this moral imperative, there is attained the spring to a possible election of righteousness against any and all other interests. Taste or philosophy may control happiness, and virtue or piety may control all. The spirit may keep all natural craving in subjection, and in the end of its own dignity it can originate acts subjecting all of happiness to its own moral worth. All the elements necessary to the capacity of a will in liberty belong originally to the human mind. The evidence that man puts in exercise such a capacity is found in the following direct inferences from facts in consciousness, and is a direct fact in consciousness itself.

i. *Consciousness of personal responsibility can stand only in a capacity of will in liberty.*—The conviction of personal responsibility for personal character and action is in every consciousness. Speculative theories and delusive conclusions may often beguile the logical judgment to deny such personal accountability, but no speculations of the logical understanding can make the reason to belie its own insight. The spirit knows what is worthy of itself, and knows that it must take in its own being the dignity of its virtuous, or the infamy of its vicious, action; and while speculation may err, the conscience must hold true to its own claims. No man, in the honesty of his

rational apprehension, ever doubted the fact of his moral accountability. The tribunal and the judge, the witness and the executioner, are all consciously within himself, and if he speculatively deny his God, he cannot dethrone the authority of his own reason. He must acquit or condemn himself, and be consciously elevated or degraded in his own eyes.

But the consciousness is as clearly explicit, that for unavoidable results there can be no moral accountability. Power may crush in hopeless misery for actions that had no alternative, but no power can make the spirit see its own sin in that which it could not avoid, nor feel guilty desert for an act that could not have been otherwise. The reason goes quite back of all speculation on both sides, and not from any deductions in the understanding, but, from an insight into its own being, decides that it is responsible for personal deeds, and is not responsible for anything that is not voluntarily in its own personality. Power has nothing to do with such convictions ; omnipotence itself must go in accordance with them, and be judged conformably to them. No arbitrary infliction, not even infallible testimony from another, can wake the feeling of responsibility in the spirit, except as that spirit is conscious of character and deeds of its own, which might have been avoided by it. A thousand *liabilities* to suffering there may be, which to the sufferer are wholly inevitable, but no such sufferings ever awoke the spirit to recognize any moral *responsibilities*.

These conscious facts make the conclusion valid for a capacity of human election. Man knows himself responsible for his character and actions ; he knows himself not responsible for anything to him utterly inevitable ; he has thus both a character and a life that lie wholly within the capacity of a will in liberty.

2. *The distinction between brute and human will is in this very point.*—The animal is not rational spirit, and thus has no capacity for self-knowledge. To the brute there can be no

insight of rights and claims due on its own account, and thus the brute can have no moral rule to direct a moral life. There is no element of the ethical ; all is perpetually the natural only. Experience teaches it in many things its highest happiness, and hence the animal learns the law of prudence ; yea, experience sometimes teaches the animal what is kind, and so far the brute is pathologically benevolent ; but in all this, the animal never awakes to see the right, and feel the claim of moral obligation. The executive act goes out under the impulse of the strongest prompting, and appetite can be controlled only by arousing a stronger passion. Nothing in the animal can originate from within itself, but all the animal is and does has been determined for it in a previous condition. All is bound within the law of cause and effect in nature, and the brute can never lift itself above this bondage. There is no aspiration after freedom ; no dreaming of a spiritual world above the senses ; but an entire resting in the gratification of its own appetites. Satisfy want, and the brute is contented ; the whole capacity is thereby filled ; and the strugglings of a free spirit to reach some higher station are never known. Its whole end is happiness, and there is no quickening spring to rise to moral worthiness.

But from all this man wholly differs. In his animal wants he is like the brute, prompted to highest gratification, and quiet when animal craving is satiated. But in his spiritual being there is that which no sensual gratification satisfies. Even as depraved, and the spirit basely subjected to the desires of the flesh, he knows that the claim is strong upon him to crush his appetites in subordination to his rational worth, and restrain all their gratification by what is due to his spirit, and thus stand out again in all the dignity and manliness of a good will that masters passion. He cannot make himself to lie down at rest with the brute when animal craving is satisfied. There are the imperatives of conscience to fulfil ; the dignity and worth of moral character to sustain ; the approbation of his own and others'

spirit to secure ; and though the means of fullest gratification were given, no gratification can content him. There is a conscious wrong to himself, a foul debasement and degradation of his manliness, if the behests of his spirit are not recognized and asserted against all the clamors of sense. He cowers in secret beneath the reproaches of his own conscience, and stands self-abashed and speechless before the rebukes of his own spirit, and well knows that he cannot hold up his head among his fellows, nor keep the blush of guilt from his face when alone, if he has sacrificed his loyalty to the right, and allowed gratified want to usurp the control of imperative duty. On the other hand, he knows that he can bear all suffering, and permit all that is animal within him to be crushed and die, and go to his spirit in its integrity for support ; all of which no brute can recognize, and in which nothing that is animal can participate. There is to man an alternative to his whole animal nature, and that he should live under the law of highest happiness, like the brute, is clearly avoidable. He has a capacity of will in liberty.

3. It is only in this capacity of will in liberty, that man can discriminately determine what is personally his. — All of man's constitutional being is conditioned in its own nature, and in the connections of surrounding nature ; and the supplied conditions bring the actions out with no alternative. They really belong to nature, not to the man, except only as the onward causes in nature have wrought them out within the field of his consciousness, and made them necessarily to be a part of his pathological experience. That I am hungry and desire food, or cold and weary and desire warmth and rest, are no acts in which my proper personality participates ; they are what nature is working in my constitution. Nature comes in and works upon me, and leaves its effects in my constitutional being, as the winds blow and the shadows pass over the landscape, and the sun shines and the showers fall upon it. These are not willed by me into act and being, and I never call them mine, as at all belonging

to my proper personality. All such events are linked into the connected successions of nature without an alternative, and the chain that they compose is a unit, whether the linked events be of matter or of mind. The tones have been struck upon me : they have not come up from the depths within me, and thus sounded through all my being as personal to me. In my constitutional nature, nothing is mine ; all is put there by another. I am never to value myself upon it, nor to charge myself with it.

But, of all the originations of my spiritual activity, I am quite conscious that they sustain a very different relation to me. They are caused *by* me, and not merely caused *in* me ; they are the product of an election, and not of an unavoidable coercion ; and I know them to be mine in a sense that will not allow that they should so be appropriated to any other personality, human or divine. That ideal beauty, that poem or song, that completed system of philosophy, each belongs to its author, as neither can be owned by any other. My disposition, my plan, my habit, my purpose, these are wholly mine and not to be referred to nature, as is my hunger, my thirst, or any other appetite. And so, also, that assent to temptation, that enticing allurement, that dishonest transaction, that plan to defraud, that direct falsehood, of which I may be conscious in my own experience, these have been wrought by me, and come back directly upon me, and fix themselves inalienably within me, and forever belong to me, and not to nature, nor to my neighbor, nor to God. They were avoidable by me, and yet originated from me, and belong solely to me. I alone, in my own person, am responsible for them. And thus, too, that act of virtuous self-denial, that fixed decision for the right, that firm stand in duty, these are mine, and no other personality in the universe, than myself the doer, can feel any self-complacency in them. Influences from other quarters and agencies may have come upon me, which belong responsibly to their

authors ; but these are products of my electing agency, and have originated in my capacity of will in liberty, and are thus my personal deeds exclusively. Only because of this capacity of will can I detach what is mine from all else, and see myself and my deeds to stand out together wholly discriminated from all other beings or facts in the universe.

4. Reciprocal complacency in moral character stands wholly in this capacity of will in liberty. — Most animals are more or less gregarious, but their collection in flocks and herds is from constitutional propensities. The working of nature within them brings them together, and not that there is any reciprocal moral complacency between them. So, also, there are various associations among men, which are induced by considerations of business, amusement, or social enjoyment ; and, indeed, a large proportion of human attachments that go under the name of friendship, and even take on the form of conjugal connections, are based on no higher considerations than kindred pursuits, common interests, or congenial temperament ; and in all such cases the bonds that hold the parties together find all their strength in constitutional nature alone. They are merely joint-stock partners in attaining happiness, held in connection only from the prudential consideration that they are useful to each other, and they never rise to the elevation of that social communion where the attachments are all induced and perpetuated by the reciprocal congenialities of moral character.

But one good man loves another, and all good men love God, from the congeniality of spiritual dispositions, and their reciprocal complacency is solely through the righteous character that each recognizes in the other. It is like communing with like, in free personality ; and each heart beats in sympathy with the same ultimate moral rule, and glows with the same moral sentiments. Their spirits are all disposed to the same end, and thus the whole spiritual susceptibility, in each, is thoroughly congenial. They are kindred in spirit, and not merely held together as each can use the others for his highest happiness.

God may be pleased with man in his constitutional being just as he is pleased with all the other works of his hand in nature, solely in the light of original adaptations, and as he sees man to be fitted to the uses designed ; and he may pronounce man on this account as he did nature at the beginning, to be "very good." And in the same way, man may be pleased with God ; and, viewing him merely as a means to be used for his own advantage, in that by him he gets propitious providences, fruitful seasons, a healthy body, and a happy heaven at last, man may say of God, in all the attributes which he cannot afford to lose, "very good" ; his omnipotence, his wisdom, his foresight, his steady arrangement of nature, all "very good." What ends the man could not get, these attributes get for him, and he cannot do without them. They are all put to an excellent use in governing the universe for man's happiness, and are just as much a greater good than the sunshine and the shower, as they subserve a more important end in gratifying human wants, and securing greater happiness. But in all this there is no reciprocal complacency between God and man. Not thus does a good man love his God ; not thus does God love good men. There is a mutual delight, each in each, as objects of simple contemplation. An intrinsic excellency of moral character is seen, and on each side loved for what it is, and not for what it can be bartered away for. The whole spirituality of each person is fully set on righteousness, and for no selfish considerations will the good will turn from its steadfastness ; and in this solely is their communion, and not because they see that they are each necessary to the other's happiness. Take away from man the capacity of spiritual origination, in the election of highest worthiness above all happiness, and he can commune with his fellows only on the same basis as the animals herd together ; and God can have complacency in him, only as he is pleased with the adaptations and uses of nature. Reciprocal complacency in character can stand in nothing else than the free originations of congenial moral dispositions.

5. *Only in this capacity of will in liberty can the current of constitutional nature be resisted.*—Constitutional nature works on, and I am hungry; in this condition I am conscious that the craving for food is unavoidable. I am weary, and in this condition I cannot exclude nature's desire for rest. Let only this urgency of the appetite be given, and there is no alternative to the executive act in gratification. Let only conflicting appetites crave, and there is no alternative to the act which goes out after what is deemed the highest gratification. A smaller amount of happiness can be no occasion for carrying the executive action against a greater. A calculation of consequences, and in this an attainment of the rule of prudence, can only appeal to a susceptibility for happiness; and whether considered as an aggregate of all susceptibilities, or as one generic susceptibility, the only occasion given is that for the simple estimate of higher and lower *degrees*. All is completely conditioned in constitutional nature, and my prudence is as much a pathological law as my hunger or my weariness. The stream is one, and as it floats me onward in the direction of greatest happiness, I can work the rudder against no counteracting force in the current that carries me. Nature is thoroughly all in and around me, and I can seize upon nothing to steady myself against it, nor work my way upward in resistance to it. I myself am nature, and can only execute the promptings of my nature within me.

But I am conscious, in my spiritual being, of the possession of supernatural agency. When appetite craves, in weaker or stronger measures, I can see in my spiritual being another law than highest happiness, and feel the claim of spiritual worthiness; and I can put this over upon the weaker appetite against the stronger, or over against all appetite that is in collision with it, and I have in this an alternative in *kind* to all that nature may present, and a spring to throw myself against nature, and work myself upward in resistance of it. The desires of the

flesh may be aroused to their most passionate excitement, and all circumstances may favor the indulgence ; prudential considerations may seem to lie on the same side, and even the promptings of kindness may also concur ; thus, the unbroken current of nature may tend towards gratification ; but if I also see that such indulgence would degrade and debase my spirit, I shall, in this claim of my rational being, have a full alternative to all of nature's promptings. Let constitutional nature do her best, or her worst, I may still stand in my spiritual integrity, regardless of either the happiness or the suffering that weighs itself against duty. There is, in this capacity of the spirit, that which is out of and above nature ; a measure and a test for nature ; a determiner when gratification may be, and when it may not be, with honor to the spirit ; and in the alternative of worthiness to happiness, thus opened, no alluring temptation from constitutional nature can ever come upon man, and be truly unavoidable. It is the right of the spirit to control and use the sense for its own highest excellency ; and it is due to itself to put the flesh to any sacrifice and endurance which may preserve or exalt its own true dignity ; and thus, in its own behoof, the spirit may condemn all enjoyment, and all suffering that nature can give.

6. *Individual consciousness is clear for this capacity of will in liberty.* — We do not say that any man is conscious of "the power of contrary choice," as it is called, in the sense that he can take a less degree of happiness when only a greater degree stands over against it. If only happiness appeals to a susceptibility, all consciousness is that the greater must be taken ; for there is literally no reason for anything else, and thus no alternative. But in all men there is a deep consciousness that, somehow, there is an alternative to present disposition and character, and thus an avoidability in all voluntary action. They may not be able to analyze the fact, so that they can represent it clearly in its conception to themselves, or to others ;

but they all know that there is responsibility for their radical disposition of soul, and thus that its disposing is not without its alternative. It is not all the freedom a wicked man is conscious of, that he may change his action *if he please*. That *pleasing* is in his spiritual and *not* in any constitutional disposition ; and he knows the bond is on him that he *please* to change, and that his sin is in this very disposition which is *not pleased* to change ; and that, in this responsibility of disposition, the present evil one is avoidable. This fact may be made to stand out more perspicuous by a comparison with other activities.

The Intellectual Capacity is consciously without any alternative in its activity. In all conditions of knowing, the knowledge must be as it is, in the given condition. When the occasion is given for perceiving a house, there is not the alternative for perceiving, not it, but a tree. To the intellect, in that condition, the perception of the house, and just that specific house, is unavoidable. So in the concluding in a judgment ; with the conditioned facts, the specific judgment must be as it is. We cannot say we can change the knowledge if we please, for our pleasure has no control over it. All is determined in nature, and not at all in any spiritual disposition. So, also, is the constitutional Susceptibility without any alternative in its activity. When nature makes me cold, I cannot change the feeling to warmth, nor can I repress the desire to be warm ; and when I hear that my brother is sick, I cannot change the feeling to that which is induced when I hear he is in good health. The feeling is determined in the condition, and all men are quite conscious that in order to change the feeling there must be a change of conditions. To the constitutional susceptibility all its activity is without an alternative, and every specific feeling is, in its given condition, wholly unavoidable. Not if we please can we here feel differently, for all these feelings are wholly in nature.

But when I bring my capacity of will within the light of consciousness, I know that in precisely this point there is a wide distinction. I feel that my act of will was not bound, in its given conditions, without an alternative. I know that I could have done differently if I had pleased ; and I know, moreover, that if I was pleased to do wrong, that pleasing to so do was not inevitable. It was not determined in the conditions of nature, but wholly in my spiritual disposition ; and to that there was a full alternative. My spirit was bound, by the conscious claims of its own true dignity, to dispose its entire activity to a different end ; and I am fully conscious that the way was open to it, though it did not take it. We have only to mark the conscious contrast, in this point, between the acts of the intellect and the acts of the constitutional susceptibility, and those of the will, and we find a clear decision. The last is with an alternative, and consciously avoidable ; the two former, we know, are conditioned in nature.

7. *Universal consciousness.* — There is a full opportunity to appeal to universal consciousness, on the question of capacity for election or of will in liberty. And this is affirmed, notwithstanding the fact that the speculations of the logical understanding must conclude against it. The operation of the understanding must be wholly within nature, and can possibly have no recognition of a supernatural. It can only *connect* conceptions, and can never *comprehend* the process, in an absolute beginning and end. Thus, to the logical understanding, there can be only the conditioned, and never an absolute. There may be one circle enclosing all that has yet been, but not one that is absolute for all that can be. There may be a mounting up from effect to cause indefinitely, but not to an absolute first ; for the understanding can only connect, and in its highest cause is still obliged to conceive of something higher that conditions it. The great first cause, to the logical understanding, has still its imposed conditions within itself, and can develop its

activity in only one way. It is as much nature as any succeeding cause, only that it is assumed to be a first one. But common consciousness has always testified to the conviction that there is an absolute first cause, though the understanding can never find it, nor even have a conception of it.

Even so with liberty. The logical understanding can neither find it nor get a conception of it. Absolute origination is to this faculty an absurdity. The originator finds already within himself that which conditions his products, and he can choose only as he finds himself *pleased* to choose, but can make no alternative to this *pleasing*. He finds his disposition already within him, and does not himself originate it. The conception of his changing his disposition would involve a previous *pleasing* to do so, and conditioned in this, a choosing to do so ; and thus, endlessly, the choice must be conditioned already in some preceding given disposition. So, we say, the logical understanding *must* go. It is faculty for connecting, and not beginning ; for conditioned producing, and not absolutely originating ; for knowing nature, and not at all the supernatural ; and if we have no higher faculty, we cannot possibly conceive of a God whose disposition is in any other sense his, than that he finds it already originated in him ; and then, that this determines all his acts of election, without alternative or avoidability. Nature itself thus runs upward through all the activity of the Deity, and both the finding and the conceiving, of an originating will in liberty, is an impossibility and an absurdity. But the common consciousness never acquiesced in these conclusions of a logical understanding. Universally, the common mind has recognized a God, whose disposing of his whole spiritual activity was his own, and not that he found it already disposed, and must condition all his choices by it. Though men may not have discriminated between the faculty of the understanding, which must have its *media* for connecting, and that of the reason, which has its *compass* for comprehending ; yet have they

always testified to the convictions of the latter, against the speculative conclusions of the former. No thoroughly labored system of a will, conditioned in its antecedent grounds of preference, has ever satisfied the common conviction. That has always mounted to the source of all pleasing and preference, to the radical disposition itself, and affirmed that this was at the man's responsibility, and that it had ever its alternative. All human language, all legislation, all the history of man, speaks out what mankind in all ages have consciously felt, an alternative and avoidability to their inmost disposition.

The speculation of the understanding may at any time be counteracted and corrected in the insight of reason. While the understanding always finds a law imposed upon, the reason sees one inherent in, the agent. One holds to an end without an alternative, and is physical law ; the other binds by the imperative of duty, admitting an alternative, and is ethical law. When the fact is clearly apprehended, that the spirit of man has the prerogative, which the animal nature has not, of knowing itself and its intrinsic excellency, and thus reading its duty in what is due in its own right, there is in this seen a full occasion for its own disposing of its activity, without waiting for highest gratified want to determine it. There is capacity for originating an act in the end of what is worthy of reason, and for electing between this end and any gratified want that may come in competition therewith. And even when a perverse disposing of itself has been effected, and a sinful and depraved disposition contracted, the conscious claim of what is due to the spirit in its own right has not ceased to press, and the alternative is open, however it may be certain as a fact that it will not be taken, for the spirit to break from its bondage and obey the imperative to secure its highest worthiness.

SECTION II.: DISCRIMINATION OF WILL IN LIBERTY. In the attainment of the complete conception of a will in liberty, we are prepared to make an accurate discrimination between its acts

and all other mental phenomena, and such discrimination is necessary to a correct psychology. A self-active being, which has its law within it, and not imposed upon it, must go out in its activity as no other agency can ; its acts are its own origination, and not productions from it by an outer causality working upon it. When put forth there was an alternative, and thus an avoidability, and these are characteristics of all acts of will exclusively. In most cases, the acts of the will are readily distinguished from other mental facts. Intellectual acts are not liable to be confounded with voluntary acts ; knowing is so little similar to willing that cognitions never become mistaken for volitions. But other mental activities are sometimes misapprehended as from the will, and not unfrequently common speech confuses both volitions and other actions under the same word. We will notice some examples.

1. *Simple spontaneity is sometimes confounded with will.*— Mind is inherently self-active, and in given occasions goes out towards its ends spontaneously. We have already attained a number of such facts of simple spontaneity, many of which we here observe are sometimes mistaken for volitions, especially if they occur on occasion of their being consciously wished for. This has been more particularly the case in the facts of attention and observation. Cousin directly ascribes attention to the will, and makes it evidential of personality. But the thorough scrutiny of attention will at once determine its purely spontaneous and not voluntary origin. When a discriminated sensation is given, the operation of constructing or defining it so as to give its exact limits in either place, period, or degree, is of the intellect and not of the will. The will may be an occasion for it or not ; but in any way, the intellectual movement, which limits and thus gives form to that which is in the sensation, is purely spontaneous and not willed directly. It is often quite beyond the reach of the will, inasmuch as the will sometimes cannot prevent its being done, and at others cannot secure its

being done. I may wish to construct an object, but cannot ; and I may wish not to have it definite, but there it is in full form before me.

And precisely so of an act of observation. I may wish to get an object distinct in its qualities, or may wish not to have it distinct and cannot help it. Neither attention nor observation is of the will, but from mere mental spontaneity. The difference is in this : all acts of spiritual will in liberty must come within an alternative of approbation and opposing gratification, and constitute an election ; but pure spontaneity has no alternative of imperative and appetitive, and is merely a simple *ultra-motivity* to its object.

2. *Will and desire are not unfrequently confounded.*—Desire is the mere craving of the sentient susceptibility directed towards its object of gratification, and is thus the occasion for an executive act to go forth in attainment. The executive act, we have already seen, is not from a proper will, much less then can the mere craving which urges to it be an act of will, and yet often is the mere desire taken as a volition. Indeed, in common speech, the word *desire* is sometimes put for will, and the word *will* is sometimes used for a mere desire. The two facts widely differ, and a correct psychology demands a clear discrimination, and no equivocal terms should be allowed to confound distinct things.

In the following examples, we have the word *will* put for desire. “Not my *will*, but thine be done.” LUKE xxii. 42. This is the memorable prayer of Jesus to the Father, in the hour of his agony in the garden. Should we take the word *will* here for a proper election, we should have not only the impiety of a will in Christ opposed to the will of the Father, but also the absurdity of a will opposed to itself. The prayer expresses Christ’s real will, and yet it is that his will may not be done. Manifestly, the will here is desire, the mere craving of the animal susceptibility. Christ, as human, had truly a sentient nature,

which shrunk from suffering and desired to escape it ; but the will in the prayer is that the Father would disregard the desire of the flesh, and carry out in him his own chosen ends of human redemption. The same changed use of the term occurs in Lam. iii. 33. "For he doth not *willingly* afflict nor grieve the children of men." Speaking after the manner of men, it is not a congenial feeling, as desire, to afflict mankind ; but superior considerations induce the purpose, as will, to do so. So also it is said of God, "Who *will* have all men to be saved, and to come unto the knowledge of the truth." 1 Tim. ii. 4.

Again, we have the word *desire* put for will in the following examples. "They *desired* Pilate, that he (Christ) should be put to death." Acts xiii. 28. "And he (the Ethiopian eunuch) *desired* Philip that he would come up and sit with him." Acts viii. 31. "One of the Pharisees *desired* him (Christ), that he would eat with him." Luke vii. 36. "Then Daniel went in and *desired* of the king," etc. Dan. ii. 16. In all those cases there is more than a feeling in the susceptibility, a craving for an end ; there is truly an election, as will.

The appetitive craving is one thing, the electing its gratification is quite another ; and no matter how common speech may interchange words, philosophy must accurately discriminate facts.

SECTION III.: OBJECTIONS TO A WILL IN LIBERTY. There are objections often urged against free-agency, and these should be fully and fairly answered.

1. Obj. *Like causes always produce like effects.*—The force of this objection is that by an invariable law of causality its action is uniform in like circumstances, and acting in the like conditions must ever produce the same effects. This law must hold in the mental world as well as the physical, and we are not thus to suppose that any mental acts can be different under the same conditions.

If there is nothing above nature, this objection is sound, for past all contradiction, physical causes operate alike in the like

conditions. But if nature is subject to the control of a supernatural, then must there somewhere be a causality that is not itself caused by a higher efficiency, and which truly originates events from itself. If this supernatural cause has an ultimate rule of right in its own being, it is not only more than physical efficiency, but more also than pure spontaneity, since it conditions itself in its own ethical demands, and originates its effects intelligently and morally, and thus contingently and not necessarily. Such causality is not thing, but person, and as absolved from all causality above him, and all imperative except what is found within him, he is the absolute, spiritual Jehovah.

Just so far as man's spirituality reaches, he too is person, and possesses the capacity of origination in liberty. His moral acts are not the product of a natural causality necessitating them with no alternative, but are his own originations, on occasion of both the impulse of appetite and the obligations of duty ; and which of these he takes is at his own responsibility, for the open way to the other made the taking of this avoidable.

We need not thus deny a certainty of like results in like conditions, but the certainties of natural and spiritual causalities are wholly different. Nature has no capability of origination from itself, and all its causes are themselves caused by an efficiency back of their own acting, and have thus no alternative ; but spiritual causality is out of, and above, all nature's causes, and may begin action in itself and thus truly originate, without requiring that its acts shall be caused and thus necessarily determined by nature. However certain it may be, in reference to any action, what it shall be from its occasions, those occasions do not cause it to be, and thus do not exclude avoidability.

2. Obj. *Then all means are powerless.*—This objection urges that if the spirit can begin action in resistance to nature, then no matter what motives are presented, nor what means are used, the spirit can counteract them and the will go against them, and thus nullify all their efficiency.

True, all means are powerless, since they are not efficient causes operating on the spirit, and themselves causing the acts which come from it; else would the spirit be subjected to nature, and all its acts would be unavoidable, because grounded in necessity. But they are not powerless in this sense, that they give occasion for spiritual action, and throw a moral influence upon the spirit in the direction to a given action. Whether of the appetite towards happiness, or of the imperative towards worthiness, they are inducements in one direction; and hindrances in the other direction; and may be a ground of certainty which direction will be taken; but inasmuch as they are not physical causes, themselves causing the spirit to act, they constitute no necessary inability to an alternative, and at the highest are truly avoidable. They have no power to make the spirit to be nature, but they have influence which may give the certainty what a supernatural spirit will do.

3. Obj. *It denies that every event must have its cause.*—The objection affirms that here are acts of the spirit which are not connected in any efficiency with their antecedents, that these antecedents may be of any kind, and they do not make their consequents to be after their kind, and that the antecedents do not cause the consequents, and thus the consequents are without cause.

To this we may clearly reply, that while the spiritual act is without cause in that it is not an effect from any of nature's causes, while no antecedent in nature is its immediate antecedent, but it originates in a source wholly supernatural, while it is wholly a new thing put into nature which does not come out of nature, and is no change of what was in nature already, still the spiritual act is not without cause. It does not come up out of a void. Its proximate antecedent, and thus its immediate cause, is the spirit itself. Nothing out of the spirit, and especially nothing back of the spirit in the realm of nature, has caused it; the spirit itself has originated it, and henceforth that

event, whatever it may be doing in nature, belongs to the spirit, and can nowhere find for itself another author.

4. Obj. *This cuts off all spiritual action from the possibility of foreknowledge.*—The objection declares that the act is contingent and may be avoided ; it has no necessary connection to anything that now is in nature ; it may therefore be avoided, and nothing that now is can determine that it will not be avoided ; it is thus impossible to be foreknown.

But while it is not now given in anything yet within nature, and cannot thus be foreknown by looking through any successive changes in nature, this does not deny that the Absolute Spirit may have the certainty of it. Must God foreknow, only as he can look through the necessary sequences in nature ! The doctrine of will in liberty does not deny, but affirms, that any spirit, which might know all the inner and outer occasions in which the agent shall be, might find a ground of certainty in these very facts. These occasions will not cause the spiritual event, but may give a ground of certainty that what is in itself wholly avoidable yet will not be avoided. This is always the only ground of moral certainty, and yet with our limited means of knowing the occasions, we often trust the highest interests on our certain convictions of what free agents will do ; a perfect knowledge of all the circumstances might give perfect certainty which alternative would be taken.

5. Obj. *Such free origination is inconceivable.*—The doctrine of will in liberty, it is said, supposes a causality which can go out one way or another, and that there is nothing back of it causing it to go in either, and that thus it must go the way it does for no cause or reason whatever. This is the absurdity of choosing without choice, and is inconceivable.

It is admitted, and affirmed, that it is inconceivable by the logical understanding. A liberty in physical causation is an absurdity. On one side, we cannot conceive that the causality can have an alternative, for that would involve that a conditioned

cause might rise above its conditions, and would be the absurdity of action from nothing. On the other hand, a will, already determined in its cause and going out with no alternative, is the absurdity of unavoidable choice. Physical causality can have no alternative ; action in liberty can be only with an alternative ; and thus an understanding, which can only connect by conditions, cannot conceive of a liberty in causation. A logical understanding can conceive of no beginning, and of course can conceive of no originator. But we are obliged by our reason to demand a first, and thus to attain a conception of an author who has no cause before him conditioning either his being or acting, but in whom action originates. This is the very conception of spiritual being, and entirely supernatural existence ; a being not bound in nature, but competent to originate uncaused by nature ; and till the reason gets this conception, entirely distinct from all the efficiencies in nature, it knows neither a God nor a soul, and must confine all things within the linked succession of a series to which it can give neither an origin nor a consummation. Liberty is a necessary attribute of spiritual being, and is fully conceived in an existence that can hold on to a law of duty within itself, against any end of action from without itself. It lifts the conception at once out of nature to that which can work against nature, and is both self-action and self-law.

Such we must conceive to have been the creative act of God. It must have originated in himself, and gone out self-directed ; for any conception of previous conditioning that made the creative act to be, and to be such as it was, would demand a necessitated series of conditions running up in the bosom of the Creator without an original. The same conception of agency as an endowment by God, originating acts within the finite sphere of man's efficiency, is both possible and actual.

6. Obj. *All analogy is opposed to it.*—All the causes in nature are conditioned in some higher causality, and go out

into effect without an alternative, and thus from analogy we should conclude that it is so with mind, and that all its acts have their previous determining causes.

To this it might readily be answered that analogy is of no force against a matter of fact. Where a fact cannot be brought within experience and thus to the test of consciousness, a fair argument from analogy is legitimate, but conscious experience cannot allow itself to be contradicted by any analogical argument. But were analogy admissible, we should derive from it the strongest support in favor of action in liberty. No physical causality is held at all responsible. It lies confessedly outside of the entire sphere of ethical activity, and can be subjected to no imperative constraints; it may therefore at all times be conditioned in its antecedents, and be doomed to work on without an alternative. But spiritual agency is responsible agency, and on this account is excluded from conditions of all physical causation and all analogical deductions therefrom, and demands just this agency of free origination and alternative election.

7. Obj. *All surprise for the most rash and unreasonable conduct is wholly without foundation.*—All spiritual action is contingent, and thus wholly avoidable, and may just as well be against reason as with it, and even against interest as for it; thus there is no ground for expecting one act rather than another, and no occasion for being surprised at any man's action.

But occasions for action are necessary to all free causation, and these occasions give inducements or hindrances to the act, and may supply a ground of certainty what the action will be, though they do not fix it in unavoidable necessity; certainly then these moral occasions may furnish strong grounds for expecting the act, and reasonable surprise if not exerted, or if some quite different action be put forth. But this objection may much more forcibly be retorted upon the objector himself. With him all is made unavoidable in the previous conditions.

As the case is, there is no alternative ; one event alone can be. All surprise at the event must thus be wholly from ignorance. I should feel no more surprised at any human conduct than at the bursting of a steam-boiler. Neither could have been otherwise in the conditions, and the surprise is alike in both, *viz.*, ignorance of the reason why they could not help it. But actually, my surprise for the human conduct is why the man did not help it.

CHAPTER III.

CLASSIFIED GRADES OF WILL, AND THEIR RESULT IN FIXED CHARACTER.

MIND or Soul may be indifferently applied as terms to denote the agency in willing ; the mind more specially refers to the knowing, and the soul to the feeling side of the activity. This agency in willing stands between the sense and spirit and must go out for gratified sense or approving spirit, and has free capability for taking one and rejecting the other, and thus acts morally and responsibly with this free alternative.

The will, as capacity, is the power of election, and thus an avoidability in the origination of the act will characterize every proper volition ; yet in other respects the acts of the will may have permanent distinctions among themselves, and there are many advantages in having them classified according to their inherent peculiarities. One great benefit from it is a clearer apprehension of the point of responsibility, and of the fountain of moral character.

SECTION I.: IMMANENT PREFERENCE. Preference is an actual putting of one thing before or above others ; and this may be done in the soul's own action without any overt manifestation of it, and as thus lying hid in the mind may be termed an

'*immanent* preference. An act of the judgment may decide which of two sources of happiness is the greater in degree, and of worthiness and happiness which is the higher good in kind, but such distinction of estimate in the judgment is not a preference. And so also one desire may go out towards its object more intensely than another, or one imperative may awaken a deeper sentiment of obligation than another ; but no difference in degrees of awakened susceptibility should be termed a preference. There must be a proper election, a voluntary setting of one before others, or it is not a proper act of preference. Want of occasion or countervailing circumstances may preclude this preference from manifesting itself anywhere on the theatre of active life, and thus the act of preferring may never pass over from the mind ; yea, the intention through all the duration of the preference may be that it shall never come out in open action ; yet is there in it a real commitment of the spirit to the end preferred, and such inward election is a personal willing, which to the eye that searches the heart has its proper moral character. It is fully within the person's own consciousness, and the conscience accuses or excuses accordingly.

As examples for illustration, there may be mentioned the declaration of the Saviour, "Whoso looketh on a woman to lust after her, hath committed adultery already with her in his heart." MATTH. v. 28. "Whoso hateth his brother is a murderer." 1 JOHN iii. 15. And quite prominently, the tenth commandment, "Thou shalt not covet," etc. EX. xx. 17. In a good sense we find this immanent preference in the case of David, who would have built a temple for the Lord, but was prevented because as a warrior he had shed much human blood. "It was in thine heart to build an house to my name, thou didst well that it was in thine heart." 1 KINGS viii. 18. As a general application on both sides, good and bad, we have Solomon's declaration of man, "As he thinketh in his heart, so is he." PROV. xxiii. 7. This *thinking in heart* is a real *electing purpose*.

The immanent preference of objects and ends must widely affect the entire personal character, though the action towards the object externally be always restrained. The whole inner experience of the man is modified by it, and all his habits of meditation and silent reflection become tinged with the color of his secret preferences. It is easy to see what was the inward preference of David, when he said of the Lord, "Whom have I in heaven but thee, and there is none upon the earth that I desire beside thee." Ps. lxxiii. 25. And while this induced pious meditations on his bed in the night-watches, the effect upon his entire character would be in strong contrast to the impure and debasing thoughts springing from the immanent preferences of the sensualist. The inward influence must soon so far affect the whole man, that the outward life will be colored by it through all its communion and conversation, though the specific preferences be still restrained to the heart. An immanent preference will surely, thus, soon become a main preference, and then an overt purpose controlling outer action in attainment of the end preferred. The will thus rises to the higher grade of an overt purpose.

SECTION II.: GOVERNING PURPOSE. The mind's activity may dispose itself towards an end, that may demand many supplementary acts before it can be attained; in such a case the general election of the end is a purpose, and inasmuch as it prompts the executive acts and guides them to its own issues, it is properly termed a *governing* purpose. The executive acts are solely that the general purpose may be effected. Such governing purpose may be more or less comprehensive, proportioned to the number and complication of the means and agencies used to complete the end, and so far as it reaches, it governs the process, and is, to that extent, a governing purpose. A purpose to visit a distant place will govern all the actions necessary in preparation for and prosecution of the journey; but such a purpose will not be so comprehensive nor engrossing as that which fixes upon the main end in life.

The governing purpose has this peculiarity, that it is continuous and prolonged through all the process to the consummation. An act of election is at once, and may wholly cease in its instantaneous energizing ; and, in this point of view, volitions are transient and fleeting ; but when the election has been of an end that is to be attained only through a long succession of activities, the electing act does not die in its outgoing, but the spirit fixes itself upon its object and remains in a state of energizing towards it. That it has taken its distant end removes all the un easiness of hesitation and suspense, and there is no farther place for choice, since the mind is already made up ; but the action, as will, has not terminated in the choosing ; it flows on in a perpetuated current towards its object, and the *spirit* may be said to be in a permanent *state of will* for the accomplishment of that end. A purpose is thus a perpetuated will from an election. A person may not always retain the consciousness of having made the distinct and deliberate election ; nor, indeed, be conscious how deep and strong the current of his purpose has become. An absorption of all the mental energy may already be in a purpose to acquire and amass riches, and yet the distinct election of such an end may have no place in the memory ; and the purpose itself may have strengthened so insidiously, that the man has no conception what a very miser he has become ; but there needs only to be suddenly interposed some threatened danger to his wealth, or some obstacle to any further gains, and at once the perturbed spirit manifests the intensity of its avarice. His will has yielded to passion so readily, that it has not known the strength of its bondage.

As the governing purpose is enlarged in the comprehensiveness of its end, and the control it holds over all the mental energies, it comes to be known as a permanent disposition, and while a fixed and comprehensive purpose in business would not be termed the man's disposition, yet when found so engrossing

as to merge all else in the end of getting and of hoarding money, we should not hesitate to say of such a purpose, that it is the man's disposition. It goes so far, and is so controlling, that it gives character to the man. This general character will be estimated from the end to be attained by the purpose and the earnestness of the pursuit, and so each distinctive purpose will have its specialty both in occupation and zealous prosecution. The different trades, professions, and varied occupations will all have their characteristics, and the men will be prudent, diligent, ambitious, etc., according to their activity. The moral character can be ascertained only in the end of the governing purpose.

The *governing purpose* is, in this way, distinguished from all the choices or volitions that are subordinate to it. They exist for it, and find their whole determination in it. They may change according to circumstances, and often the good and the bad man's end may induce to the same outward action. A worldly end may sometimes be best attained by putting on the semblance and performing the ceremonials of piety; but the character of the subordinate act is to be estimated, not from the outward seeming, but solely from the governing purpose which it is designed to execute. The character can be changed by no change in the choices and volitions of the man, but only in a change of the governing purpose. Nor will this exclude all interference from other interested sources. The most strenuous purposes will meet counter currents of conflicting emotions.

Desultory volitions. — An election of some comprehensive end may have induced a permanent state of will in a governing purpose, and this may still continue unrenounced and unchanged, and yet this governing purpose may not be so energetic as to preclude the sudden and strong awakening of some constitutional susceptibility, to carry out an executive act in gratification of it, against the direction of the governing pur-

pose. Such turning aside from the main end, while the governing purpose towards it is not renounced, is what may be termed a desultory volition. Observation and experience constantly give such facts, where a passionate impulse comes suddenly and strongly in, and the action for a time is carried away from the main object before this counter-impulse of sudden feeling. But inasmuch as the governing purpose which it thus counterworks has not been discarded, the desultory impulse must at length subside, and the old unrenounced purpose again bear sway. The passion is satiated and subsides, reflection returns, and the main end again comes in clear view, and the governing purpose controls the subordinate acts again for its attainment. The man chides himself for his folly and weakness, and hastens on more determinately towards the predominant object.

A familiar illustration of the intrusion of a desultory volition will make the conception distinct. I learn that a dear friend is dangerously sick in a distant city and I take the purpose to visit him. This controls all my volitions in arranging for the journey, and from the start onward, for several days travel towards the place. Then an intensely interesting incident suddenly occurs, and my feelings are at once powerfully excited and my attention absorbed by a surprising curiosity or convivial opportunity or chance for pecuniary speculation ; and I give way to this desultory impulse and lose sight of my main end for some hours. But at length this impulse becomes exhausted ; the main end and purpose of my journey comes vividly up, and, conscious that they have never been renounced, though inex-
cusably suspended, I hasten on to the prosecution of my intention, reproaching myself for my weakness and fearing that all may now be in vain, and that during my delay my friend may have died. And so, once more, where the governing purpose rises to a permanent disposition,—an exceedingly avaricious man may be taken as an example, whose purpose fixed on gain

may have made him a very miser in all his feelings and habits. There may suddenly come to him an appeal, from some interesting sufferer, that shall rouse his pity and induce the gift of some of his idolized gold in relief of this deep distress. But his governing purpose has not at all been changed in the intrusion of such a desultory volition, and very probably in a few hours all this constitutional sympathy will have passed away, and he be chiding himself as a fool for his weakness, and more firmly resolving not again to be so overcome as thus to be cheated of the object of his ruling passion.

The *real character* of the man is in his purpose, and if this is not changed, no desultory acts affect his true character. A good man may have sudden and strong temptations in appeals to constitutional appetite, and the impulse may bear him away in sinful action ; but if the good purpose has not been renounced, the tempting influence will at length fade and the man come back from his fall with bitter tears and self-reproaches,— a repenting backslider, but not a deliberate apostate. Against both a bad and a good governing purpose, such sudden impulses may induce desultory volitions which are quite in contradiction to the main direction of the governing purpose ; but we are not to estimate the man's proper character by them. If the bad man do a good deed only through the impulse of constitutional feeling, all we can say in his favor is, that his depraved disposition was not too strong for some transient traits of humanity ; and when a good man so does a bad deed, he is a sinner in that act, and should feel debased and humbled by it and repent of it ; but the real character of neither the bad nor the good man was in this way at all changed. The strength of character is in the decision and firmness of the governing purpose, and to be perfect, this should be so strong in the right that all desultory impulses should be resisted ; but no man is safe in supposing, and no man can at any time be conscious, that his governing purpose is so strong that all desultory voli-

tions against it shall forever be excluded. But no governing purpose of special application to its end will be sufficiently broad to determine ultimately the radical character of the person, nor can any governing purpose to a special end stand alone, but must be comprehended in and rest back upon a deeper basis. The entire voluntariness of the man has in some way its disposal to an ultimate end, and in that only is the man's radical moral character to be ascertained, and in such disposition is found the ultimate grade of the human will.

SECTION III.: THE RADICAL DISPOSITION. The Mind or Soul is ever open to all the appetites of the sense, and if it were sentient only it could have no alternative to sensual indulgence when appetites crave. But man is originally endowed with rational spirit, and this is set over against the sense, with imperatives which make the soul know, that thereby it ought and can hold all of appetite in subjection. The soul, from its earliest probation, stands between these two ends of action, *viz.*, sense-gratification and spiritual approbation, and gives itself supremely to one or the other. It must take one, it cannot take both, and at every point of its experience the soul either serves the sense and in this is "carnally minded," or it serves the spirit and is "spiritually minded," and to whichever the mind is made up and whichever as psychical judgment it has adopted, that is the soul's *radical disposition*. The whole executive energy is characterized by it since the will has gone into it, and the soul has adopted it. The man's treasure is there, and "where the treasure is there will the heart be also." The radical disposition is thus the heart and soul of the person.

The governing purposes have been in detail, while here in the radical disposition they are a totality, and are all alike in moral character with it. The sentiency only is animal; the sense and soul together only is the scientific man who acknowledges no ethics; the sense, soul, and spirit in one is the artis-

tic, philosophic, ethic, personal, and religious man, who recognizes nature, humanity, God and immortality, and who puts all spiritual communion in this, that each personality in the community has the radical disposition, which in its integrity is a hearty devotion to spiritual sovereignty. The one sentiment adopted by all is, an interest in the reign of righteousness everywhere and forever. How shall it be made clear that this is imperative upon all humanity?

The true Heart of Humanity.—To make clear what this is, and fix its universal obligation, will require further consideration.

The animal constitution is a sensory only, governing itself by remembered experience. The human constitution, as scientifically acknowledged, is sense and soul, the soul governing sense by deductions from uniformly tried experiments. Man's true constitution is sense, soul, and spirit, the soul adopting sense-indulgence or spirit-rule on its own responsibility.

The constitution is *given* in each case, and the executive activity gets the results. In the animal, the activity is spontaneous; in the scientifically human, the agency is the soul's calculation of greatest happiness on the whole; and in the proper man, the agency is the soul's election between sense-gratification and spiritual integrity. The soul's estimate and adoption, in any case, begets a *disposition*, which is as important as the end it attains. The disposition imports a *sentiment*, which evolves both knowing and feeling, and the feeling part of the sentiment is the *Heart* of the disposition. The feeling which lies at the central point of the radical disposition is truly the man's heart, and this the rational spirit requires should be righteous in all experience.

We shall need to ascertain the process by which this central feeling in the disposition is induced, the distinctive grades it may present, and the point at which responsibility attaches to the soul in fixing this true heart within itself.

i. *The process by which the heart of any disposition is*

induced.—In constitutional feeling the appropriate occasion at once excites the feeling, and no process intervenes. But that the soul may have its sentiment, it must first dispose itself to some interest as end to be attained, inasmuch as experience invariable testifies that till the disposing act has passed, the feeling of gratulation will not come. To the end of making the necessary process quite manifest, we give some direct appropriate examples.

We may *first* take an illustration from a case where a disposition is *deliberately formed*. A young man may have just concluded his college course by which he has become intellectually fitted to enter upon any course of direct professional study. The question presses for a decision, “What distinct profession shall I pursue ?” He may, perhaps, readily dismiss all others, but is quite indeterminate in reference to the profession of Law or of Divinity. He will study for the Bar or the Pulpit, but which he should take he cannot at once decide. He deliberates ; estimates his own qualifications and circumstances ; calculates carefully all the consequences that may be apprehended ; and ultimately disposes the whole mind in a direction to one pursuit. We now suppose it to have been, judiciously and conscientiously, the Gospel Ministry ; and with the mind so made up, there is no need of a perpetual energizing to keep it in that direction : it has already gone into a fixed state, and become a specific bent or permanent disposition. And here the point to be noticed is, that this disposition to the Ministry has induced feelings and emotions which could not have been in his experience had his mind been disposed on the profession of Law. Every day will come up feelings and sympathies that originate wholly in this disposition of his mind. His constitutional susceptibilities have not at all changed, for constitutional nature has not at all been modified ; but the mind has become disposed in a new direction and bent to a new and permanent end ; and at once, in this permanent disposition,

there is a new state of feeling which could in no other way have been induced. The same may be said of any other determined pursuit. The Physician, the Farmer, the Sailor, the Soldier, etc.: each has his peculiar class of sympathies and emotions, and one could not be exchanged for another but in the corresponding change of disposition. The constitution remaining wholly unchanged, these feelings become possible, in the securing of the appropriate disposition for them.

Still more prominent is the peculiarity of some feelings, where the disposition has *not been so deliberately formed*. Wealth, or fame, or pleasure, may be proposed as ends to be attained; but the strong bent of the mind, in its particular direction to either, may have been effected gradually, insidiously, and almost imperceptibly to the man himself. The disposition may have had its beginning and growth so unnoticed, that it may emphatically be said of the man, "ye know not what manner of spirit ye are of." But the disposition, whether avaricious, ambitious, or voluptuous, has in it its own specific state of feeling. The avaricious man has feelings which neither the ambitious nor voluptuous man, as such, can have. A miser's feelings are not possible but in a miser's disposition. Physical organization and constitutional temperament may be of any modification; but the avaricious sentiment cannot be without the disposition bent on hoarding money. Change that disposition and you change all these peculiar feelings without at all changing the constitutional nature.

So, in a more eminent degree, and without here attending at all to the subjective manner in which the disposition is secured, let the whole bent of the mind be directed to *the rule of right* as its end, exclusive of any gratification that can come in conflict with it, and this is the disposition of the righteous man; and in this disposition solely is the heart of the good man. No matter what his constitutional nature, he cannot feel as the good man does, nor sympathize at all in any sentiment he has,

except as he has first attained the good man's disposition. The virtuous feeling is nowhere else but in the virtuous disposition.

Constitutional nature as it is, the tendency to constitutional feeling, whether animal or rational, is already in it; and the occasion needs only to be presented, and the feeling necessarily follows. But no modification of constitutional nature can give the spiritual disposition. That must be induced in quite another process. The soul must dispose itself to the end of the spiritual imperative against all sense-appetite, holding the sense in subjection to the spirit, and in this only is the spiritual disposition, with its intrinsic sentiment of righteousness and its still deeper heart of joy and peace, in conscious integrity and true dignity.

2. *Some of the prominent distinctions in sentiments.*—When, as above given, there is the making up of the mind in reference to a particular occupation or pursuit in life, such a disposing of the soul's activity will in itself give the particular feelings and sympathies which belong to that employment, and which constitutes *the tie of a class*, by virtue of whose connecting bonds all the members are held together in kindred sentiment. This is a most widely operative principle in human society, and is at the basis of the multiplied castes, associations, and parties, into which mankind arrange themselves, and constitutes that *esprit du corps* which is so pervasive and effective in all party movements. So soon as the disposing of the soul in the direction to the party-end occurs, the susceptibility to its peculiar sentiment is possessed, and the tie of the class attaches. There may mingle the influences and interests of many constitutional gratifications, but quite independently of all natural appetite or constitutional desire, the party sentiment is the common bond of attachment among the members. Varied as this may be in the multiplied associations of life, it forms a distinct class of psychical feeling, and whether for good or bad ends, and for the attaching of good or bad men together, it is everywhere the

same principle of a kindred sentiment among those of a kindred pursuit, and is variously named as sectarian feeling, party spirit, denominational sentiment, class sympathy, etc. This tie of a class, though so pervading and effective through all communities, is still among the least prominent and less generally noticed sentiments of psychical feeling.

Among individuals there may be kindred interests, pursuits, and constitutional temperaments; and these may render two, or any number of them, mutually congenial to each other, and the intercourse of such may be intimate and highly agreeable. But as yet there is no psychical sentiment, and thus no living bond of affection between them. The changes of business and pursuit, of interests and habits, may throw out some and introduce others, or even wholly remove the man to other congenial social circles, and he feels little loss and finds for it ready compensation. But when there has been a decided commitment of *soul*, and a reciprocal flowing out of the heart each to each, there is in this a union of dispositions; and at once a cordiality of feeling springs up, much deeper and sweeter than all the congenialities of common interest or similar temperament. The sentiment of *friendship* is experienced, and like David and Jonathan, the soul of one is knit to the soul of the other. When this mutual commitment of soul is between two persons of different sexes, and to the end of exclusive connection and cohabitation for life, the sentiment is that of *connubial love*, and becomes the tenderest and deepest of all human attachments. It is the blending of *personalities*, and the source of all the connections of consanguinity. Neither the feelings of Friendship, nor of Connubial Love can be, without the actual commitment of the soul to the object, and thus the attainment of a permanent disposition, in which alone is the susceptibility to the cordial sentiment.

So, when a man commits his soul to the highest advancement of the liberties and civilization of his country, he has the

disposition of a patriot ; and in this, the susceptibility to every *patriotic sentiment*. No matter how strong the feelings of self-interest, nor even how controlling the sentiment of party ; there is nothing of patriotism, until there is the disposing of the soul's activity to the end of his country's highest freedom, and in this patriotic disposition is the susceptibility to every patriotic feeling.

The above are all instances of psychical sentiment, which cannot be said to be themselves *radically distinctive* of personal moral character. The disposition, out of which the susceptibility to the feeling springs, is not sufficiently deep and controlling to settle the question of moral character. Strong friendship, deep connubial love, and strenuous patriotism may be where there is no radical universal commitment to eternal righteousness. They are affections, sentiments, and they may be termed amiable ; but they are not properly virtues except as contained in a more radical spiritual disposition. Passing all these, and other similar sentiments, as though originating in a disposition, yet not so deep as to be called virtuous, we turn to such as come completely within the sphere of moral goodness, and stamp the character as truly righteous. These will be of distinctive elevation, according to the elevation of the disposition.

The purely ethical sentiments.—When the man has a spirit devoted to the ultimate rule of right, and which excludes every end that collides with its own highest excellency and worthiness, such disposing of the *spiritual* activity, in a permanent state, is a *spiritual* disposition, and in the comprehensiveness of its end, subordinating all that can conflict with it resolutely to it, it is a virtuous disposition, a flowing out towards right for its excellency's sake. In the very fact of attaining such a disposition there is the securing of a susceptibility to feel all the sentiments which a good man ever experiences. Except in the virtuous disposition, the susceptibility to virtuous sentiment can-

not be ; and thus, until the man's soul is disposed towards the right, exclusively, comprehensively, and permanently, he cannot by any possibility share in the good man's feelings. He can have no susceptibility to truly virtuous sentiments. In the disposition is the spiritual susceptibility to all the complacency, joy, and blessedness of the truly moral man. As yet, the disposition knows no higher end than the ultimate ethical right, and the exclusion of all gratifications that may conflict with the spiritual excellency, and thus the sentiments can rise no higher than the purely ethical.

The religious sentiments. — When a man recognizes the being of a personal Deity, absolute in his own perfections, maker of himself and all things, and perpetual benefactor, and also recognizes his own dependence and accountability, there comes an occasion for the disposing of the spiritual activity to quite another and more exalted end than when simply contemplating the excellency of his own spiritual being. The devotion of all I am, and all I have, to this Absolute Lord, is my duty and his due. And now such a disposition actually attained at once induces a susceptibility to higher sentiments than the purely ethical. The feelings of religious confidence, divine gratitude and love, adoring praise and worship, immediately break forth, and I have all the glad experience of the truly religious man. The feelings could not be until first the disposition were attained ; but this disposition is found in no constitutional temperament, and only in the supreme bent and inclination of the soul towards God.

The truly Christian sentiments. — When the man as a conscious sinner, helpless and hopeless in his condemnation, recognizes the crucified and ascended Redeemer, by whose gracious interposition he knows that all his own morality and all his religion are induced, and that, through repentance and faith, pardon and justification with God may be applied for the Redeemer's sake, and this consistently with every claim of God

and his whole government, there is, then, an occasion for a disposition of spirit more than merely religious. And when a disposition, directly going out and fixing upon this crucified Saviour, as the only source of help and hope, is truly possessed, it has in it a susceptibility to feelings which no merely religious devotion to God in the man's own name can ever attain. The love that has much forgiven ; the gratitude for grace imparted ; the confiding constancy, which owes all and commits all to this only Saviour ; all these Christian sentiments now come out, and the spirit glows with emotions to which angels must themselves be strangers. Till this disposing of the soul on Christ, this susceptibility to Christian feeling and sentiment was impossible. The source of the feeling is nowhere else but in the Christian disposition.

Christian love is widely distinct from any constitutional feeling. A love of the Lord Jesus Christ is possible only as the spiritual disposition has gone out towards him. So long as the spirit is disposed on some other object, the feeling of Christian love cannot be : there is no heart to it. The religious claims induced in the apprehension of the truth regarding Christ are unwelcome and their pressure becomes irksome, and hence the feelings of aversion and hatred are the necessary result of pressing Christian truth upon an unchristian disposition. *Evangelical Repentance* has the same law in the mind for its exercise. As a feeling, it is godly sorrow for sin. That spirit which is fully disposed towards Jesus Christ cannot look upon sins, at any time committed, without feelings of penitential grief ; while another spirit is fully set against Christ, and the dishonor which sin occasions to Christ is no occasion of sorrow to such a soul, nor can any view of sin against Christ bring out from such a disposition any other feeling than hardened impenitence. The disposition must change or there is no susceptibility to godly sorrow. *Evangelical Faith*, in so far forth as it is a joyful confidence in Christ as a Saviour, is a feeling, and springs from the

heart of a Christian disposition, like Christian love and repentance. Of all proposed methods of salvation, the spirit has gone out to Christ in his appointed way, and with such a disposition a new feeling of confiding security and sweet reliance is at once called into exercise. But let the disposition go out after any other Saviour, and this feeling of confiding Christian repose cannot be in exercise.

So of all Christian sentiment ; there must first be the Christian disposition, or there can be no susceptibility to the feeling. The modifications of no constitutional susceptibility can secure them. They are spiritual, and distinct from all other spiritual emotions, in that they originate in a heart which finds its being only in a Christian disposition.

The general distinction between the *psychical* sentiments only and the *spiritual* sentiments may expound the general fact in experience, that good men are so often warped in their decisions by their party ties. The party has been so sincerely adopted, and its sentiments have been so fondly cherished, that these have come into the place and taken the authority of truly ethical and religious convictions, and are permitted to sway the judgment as if they possessed the dignity and worth of the spirit.

3. *The point of responsibility in the spiritual sentiments.* It is quite necessary to note that neither the heart itself nor any of its exercises are the immediate products of the will. They are never volitions, and cannot be directly willed into being. They are as necessary in their conditions as those that belong to constitutional nature. The disposition being given, the heart is determined in it ; and then to this heart, the occasions being supplied, the specific feelings are necessitated. How then may I be commanded to sorrow for sin? to rejoice in the Lord? or to feel the complacency of the virtuous man?

Were these sentiments the product of constitutional nature, we could have no responsibility for them. All men participate in the constitutional feelings in virtue of their common human-

ity. Difference of degree will make no difference in kind, and what the susceptibility is has been determined in the constitution given by the Creator. This can be changed only by a physical power which changes the constitution. That the lion should eat straw like the ox would demand that the physical structure should be wholly changed. That known transgression should escape remorse would demand that the man lose his rational spirit. The constitutional feelings are without the sphere of responsibility.

But in one radical point the heart, as we now contemplate it, completely differs. Constitutional nature continuing unchanged, the heart changes in the change of disposition. The heart must be as the disposition is, and hence, so far as man is responsible for his disposition, he is consequently responsible for the heart and the feelings which are determined in it. In this disposing of the soul's activity, there may be various ends to which it is directed that shall be altogether too limited to determine therefrom any moral character. A good man and a bad man may both be disposed to the same employment for life, and have all the kindred feelings which come in under the tie of a class, and such disposition determines nothing in respect to their radical character. The disposition is not yet brought under the determination of a rule of right. But let it be known that this disposition towards the calling for life is involved in a broader disposition towards the right, the authority of God, or the will of Jesus Christ as a Saviour, and such broader disposition will have its radical character, giving also its own character to the subordinate disposition of the mind towards its objects of pursuit. Thus always shall we be able to determine any lower disposing of the spiritual activity upon its end by the character of the broader; and that disposition, which is inclusive of the universal right as end, must give its radical character to the man and all his minor dispositions of spirit. A disposition towards God, in Christ Jesus, to the exclusion of all that can

stand in opposition must be radically a holy disposition ; and a disposition towards anything else as end, to the exclusion of God in Christ, must be a sinful disposition radically.

As then radical moral character is as the generic disposition of the man, so the heart which is in this disposition will have its character accordingly, and all its sentiments will participate in the same. So far thus as the man is responsible for his radical character is he responsible for his heart and all its sentiments and emotions. A change of heart is thus nothing other than a change of the disposition in which the heart lies.

SECTION IV.: THE COMPLETED WILL IN LIBERTY COMPLETES EMPIRICAL PSYCHOLOGY. The attainment of the higher faculty of Reason completed the Empirical Science of the Intellect, by its capability to induce a precedent causal efficiency comprehensive of all the distinguishable forces of nature, and while its induction of pure space and time capacitated it to connect all places and periods with their uniform order of collated and successive phenomena into one common experience for all humanity, thus putting natural forces and mental activities in exact mutual correspondence. In like manner, the attained faculty of Reason gave the Ethic and Theistic emotions, which comprehended and regulated the sensual appetites and psychical estimates of greater happiness on the whole, and so completed the empirical science of the susceptibility. And now, just here, we have completed the science of free will by the attainment of rational spirit as the common endowment of humanity, and by it have subjected all lower interests to the sway of its ethical imperative, thereby putting freedom, radical disposition, righteous sentiment, and a holy heart in perpetual conformity and community. It will be most interesting and important if we now retrace the outlines of the Psychology thus completed in this completed science of the spiritual will in liberty.

On one side of what may be indifferently termed the *calcu-*

lating mind or the *estimating* soul, is the general susceptibility to sensual gratification, which may comprehensively be known as appetitive indulgence. This must, from the nature of the case, carry with it strong and abiding propensities. The continuance of individual life and the reproduction of all animal species depend on gratified appetites, whose indulgence is therefore too important to be left to other than quite urgent impulses. But if the executive energies are left only to the impetuous appetite, there can be none other than the passionate alternations of brute-will in perpetually unregulated recurrence. If there come in the intervention of thought and judgment making carefully prudential calculations and conclusions, and applying strict scientific experiments for practical regulation, by which all passionate estimates are excluded and only salutary enjoyments are allowed, this will doubtless be of great conservative expediency and utility, but it can attain to no ultimate self-determination and personal will in liberty. The rule of highest enjoyment with the least injury is thus found, but it is appetitive indulgence still, and the only good is sensual happiness presented in the highest attainable degree, in accordance with which the executive agency must work without an alternative.

The craving must be for the knowing or the using, and the satisfaction in knowing must ultimately terminate in the more profitable using. All physical science is experience tested by the senses, and if such a use of the senses is to any one the highest enjoyment, he will strive to know either for himself or others to use, and the interest in knowing will be lost when the science can minister to no appetite. The cheerful, the pleasant work is not on its own account, but in the end of some utility for coming experience. Whether known as kindness, or prudence, or patriotism, or philanthropy, the sentiment had in it no interest but for some earthly good, and the will could execute itself only in the service of some worldly advantage.

The calculating, estimating agency has adopted the sentiment, and the executive energy, blended and characterized by the appetitive desire, passes out to possession and gratification. It is a *servile* will, which has no master but the soul concluding and acting for its highest happiness without any alternative, and no deductions from the uniform order of experience can raise this servile will from its bondage to sense-gratification into the sphere of a will in liberty.

But the whole scene changes when we contemplate man as endowed with rational spirit. The soul is not left helpless in the one-sided domination of sense-indulgence, but has an adequate counter-check to every exorbitant appetite in the imperatives imposed by the standards of taste in art, of truth in philosophy, and more especially by the ethical rule of right and the religious law of God. In all these cases the soul is put in peril of spiritual debasement if it does not give instant and constant heed to the mandates of reason.

In the sphere of *Æsthetic Taste* there are the graded stages of propriety, courtesy, decency, and artistic elegance and beauty; and with each stage but one pure form can be the perfect pattern and ultimate standard for universal acceptation. This pure form the insight of the spirit alone can attain and impose upon the soul as imperative for its adoption and practical execution. In the field of fine art, especially of high art, the most carefully cultivated insight is requisite to catch the pure form in exact proportion, expression, attitude, and grouping of the critical *ideal*, though the executive attainment of it can be only in modified measure and varied degrees of comparative excellence. But the rational pure form, so far as attained, frees the artist from meretricious interferences and sensuous degradations. It is the soul's ultimate rule.

Again, in the province of *Philosophic Truth*, there are the varied collocations of phenomenal properties and qualities passing through their changes in regulated sequences, each having

its efficient causality adequate to secure the fact and invariable order of the succession ; but while science can recognize the fact and order and make its deductions and estimated measures and values, it is the rational spirit alone that has the insight to induce and convincingly acknowledge the pure causal force, precedent to the phenomenal fact and order, and sufficient to produce them. And while the rational spirit can give its cause for each series of changes, as scientific experiment tries them over, it can go further than this, and can take up the ultimate forces that are sufficient reasons for all physical changes, and in them give the philosophic laws by which the universal movements of nature are effected. The philosophy is yet to come, but the precedent causes that regulate the sequences, as careful scientific testing attains them, go along with the changes in the spirit's insight and make the empirical science a connected, classified, and consistent process of realities just as far as experience reaches. Experience itself has in this its actual causal connections.

But further and of more importance is the recognition by the soul of its spiritual endowment, and of the possibility thus opened for it to enter the field of pure *ethical right and duty*. The science which acknowledges for the human mind only the capability to observe and make deductions from the uniform facts of nature, can recognize nothing further for man than that he carefully and candidly compute the consequences of different methods in the use of the senses, and then that he regulate his active life by the prudential rule of highest sum total of happiness upon the whole, both in regard to his own interest and in the claims of benevolence toward others. But this will exclude all cases of fact in experience where imperatives and obligations come from the pure consideration of personal honor and the worthiness and dignity of the integrity of character alone. Every man has frequent conscious convictions that his own honest approbation of his life and character is of much higher

moment to himself than any sense-indulgence ; and that while all sense-experience may be comfortable or at least tolerable, his own "wounded spirit he cannot bear." Many a man lives and dies more self-satisfied and peaceful in his hearty, radically right disposition than in all the sensuous gratification he ever has had or has imparted to others. But all this can come from nothing other than an endowment of and allegiance to a rational spirit. "To be carnally-minded is death, but to be spiritually-minded is life and peace."

So, moreover, with a *personally religious disposition*. A deep conviction that man is spiritual and not merely sentient, and that his highest integrity and dignity of character are in his deepest subserviency of sense to spirit will, in the necessity of the case, force one to recognize the being and claims of other spirits, and most certainly the being and claims of the supreme spirit, and to feel that the deepest and purest religious disposition is that which knows itself most exalted in its most reverent devotion to God. This is an utter exclusion of all superstition or hypocrisy, for it wholly repudiates all religion from fear and from selfishness as well, and worships only from delighted communion of spirit with spirit. There is some, and it may be trusted there is an increasing amount, of this pure religious devotion to God, but it can neither be acknowledged nor experienced save as man's spirituality of being has first been recognized. There is no adequate reason for such religious disposition till first man know his own spirituality, and God as the Father of spirits. Without such acknowledgment of human and divine spirituality all pure religion is an absurdity.

So, lastly, with a *personally sinful disposition*. There are many facts of carelessness, frivolity, caprice, improvidence, and imprudence which may be compassed and expounded by a defective or erroneous judgment and false estimate of the soul, and a more careful test of experiment and rigid inductions therefrom may correct them and help to their avoidance in

future. But there will still be many facts in human practical experience that cannot be covered or interpreted by any defects and subsequent corrections of logical conclusions.

When a man becomes easily, and at length quite habitually, voluptuous, ambitious, miserly, or fraudulent, there is much more wrong in the facts than hasty judgments and false estimates ; and this can never be met and corrected by any review of the mere logical process. There is a conviction of moral unrighteousness, personal debasement, violated integrity, and thus of conscious sin, guilt, and unavoidable self-disapprobation. Nothing can fully account for these sinful facts but the recognition of a spiritual endowment disregarded and dishonored.

And when the disposition has become deeper and the executive will more confirmed in sensuality, and the hardened transgressor is obliged to say, from the consciousness of his growing slavery to indulgence, that he cannot break his bondage, and yet is also obliged to feel that his very helplessness is only an aggravation of his guilt in his more deeply-rooted determination to transgress, we are the more clear that no mending of mistakes in logical estimates is to be of any account in either interpreting or correcting the growing iniquity. There is the conviction manifest in the very confession that conscious guilt is keeping pace with conscious confirmation in wickedness. The imperative is perpetual that the sinner break his chain, and he knows that the alternative to indulgence is ever open, and that if he chose he might beat back the appetite to subjection. But how so choose? When his soul has become pleased with forbidden gratification, how shall it get the pleasing to the directly contrary executive volition? And yet in this wicked pleasing to persist in sinful indulgence, which he is forced to admit is only adequately expressed by saying he *cannot* break from it, while, on the other hand, this pleasing to sin is, he knows, *his* pleasing and *his* sin, what a paradox is found ! and

how impossible to remove it by any logical correctives ! If there is but a judging and estimating soul, then there is no alternative to the last dictate, and the will must go to the highest happiness on the whole ; and we can never confirm the good man's estimate of sin and guilt nor convict the sinner of his freedom and responsibility. But if there is an endowment of rational spirit, then the sinner's guilt is certain, and his freedom and responsibility in his deepest pleasing is his own disposition and at his accountability, and for all the facts in the case, and for all righteous and sinful conduct in human experience, we have a full explanation. Every man shall bear his own burden.

By no possible logical process can the facts in common experience which belong to the Intellect, the Susceptibility, and the Will be ascertained, classified, and put together in a complete system of empirical science, without the attainment and use of the distinctively higher faculty of Reason as superinduced upon the sense and the understanding. But by the attainment of this faculty and its use as inductive, we have, by a thorough scientific process of testing experiments, put all facts of experience, as knowing, feeling, and willing, into one classified and connected series, and now have them complete and consistent from their original to the present period, and with both the beginning and present extremes open for further regressive or progressive scientific review, should occasion require. The scientific testing may be repeated at pleasure for any fact or for its connected classification or its consistent unity in the system, by any competent and careful scientist.

This use of the Reason has given occasion, in the facts of will, to apply the terms soul and spirit in the place of understanding and reason, and so we have the sense, soul, and spirit, as combining in the executive energizing of will in liberty. The sense in its appetitive urgency is mere brute will ; the sense and soul together in judging of consequences and estimating highest urgencies gave a regulated executive, but as this is ever

in the end of highest gratification on the whole, it is thus ever a will in servitude. The estimating soul standing between the appetitive sense and the imperative spirit gave the only position for subjecting gratification to spiritual approbation, and thus the necessary condition for free election, with its executive energy and open alternative ; and it also gave full compass and interpretation to all facts of moral responsibility, both as righteous and sinful. The competency to righteousness is ever in the personal constitution as an original and inalienable rational endowment, and the impotency to the right is ever in a previous radical disposition, which is ever at the responsibility of the personal agent who so disposes of his voluntary energy.

This introduction of the faculty of reason as an authorized imperative for the induction of precedent adequate causation, in order to all uniform order in experience and all freedom in ethics, gives occasion for another division in general empirical science. To *physical* science and *psychical* science already distinguished, we must now add *spiritual* science ; in all cases the science is in the careful testing of the experience, and the qualifying term indicates the category to which the tested facts belong, whether to nature or to the sentient soul or to the sovereign spirit. Physics and psychical logic cannot deal at all with morals and religion, and such facts can be covered and expounded by rational spirit only. The spirit of man alone knows “the things of a man,” and this only can search out and commune in and with “the deep things of God.”

FOURTH DIVISION.

A COMPLETE EMPIRICAL PSYCHOLOGY GIVES AN OPEN DOOR FOR A UNIVERSAL PHILOSOPHY.

THE Psychology now completed is a classified system of all the powers and activities of the human Mind, but this could not have been effected except as the mind's endowment of rational spirit had been acknowledged, since the more important facts of ethical and theistic emotions in the susceptibility, and the æsthetic, philosophic, ethic, and religious executives of a will in liberty, all originate in the recognition of this high faculty of human reason.

But this acknowledged attainment of reason in psychology is of still greater import in the completion of empirical science in general. Not only could not the most important facts in psychology have been otherwise attained, but the connection of all physical and psychical facts of experience, if attained, could not have been so effected as to make of the whole an exact and consistent universal system. Scientific experiment might classify the facts ascertained in experience, but science without reason must ever remain incompetent to compass and expound experience itself.

SECTION I.: THE PROPER PROVINCE OF PHILOSOPHY. We have now a Psychology which recognizes man's spiritual endowment, and which enables us intelligibly to use the facts and function of the reason in the full exposition of the common experience. In this an effectual door is opened to a Philosophy, no other-

wise attainable, which may bring the tested facts of common experience not only into assorted classes, but may also put all the classes into an exactly ensphered universality; the philosophy finishing the science which had else, as ever before, remained an utterly insoluble problem. This reason-philosophy is the sure and safe authority for a science henceforth uncontested.

This philosophy finds its test in a tried experience, as truly as does the logic of the understanding, but the test of the philosophy is solely the trial of sentiments postulated in the reason, quite beyond the trial of sensations reflected in the understanding. Humanity is as truly endowed with rational spirit as with a logical soul, and the spirit has its conscious experience as real as that of the sentient soul, but while the latter is and can be only deductive, the spirit is convincingly and indisputably inductive when correctly tested, and the true philosophy rests entirely on an unmistakable appeal to rational experience. If as rational beings we propound our spiritual problems, and then delusively undertake to expound them by psychical deductions, we may well expect both anomalies and antinomies. But if spiritual things be spiritually discerned, they will be far more infallibly convincing than any logical conclusion to the future, from a past observation. A true spiritual philosophy is ultimate and inviolate, and can be questioned by no one who does not assume that reason may be begotten of unreason. And even such assumption may and must be abolished by throwing the infatuated personality back upon the conscious rights of his own rationality, which he will infallibly be found to defend so stubbornly that we shall then know his spirituality has to him become an assured reality. When put to the torture of its own remorse the spirit of humanity will in any man betray its consciously offended dignity, and the biting back of outraged reason is as sure if not as poignant in æsthetics and philosophy as in morality and religion. We only need to make the absurdity

stand staringly out to the spiritual insight, and it will be not only exposed but condemned. A true philosophy will distinguish itself from all counterfeits, by putting itself and them to the fair and full test of rational experiment.

Empirical science restricts itself to the testing of common experience by new experiments of passing facts, and then deduces from their uniform order the connections and relations of all empirical objects and their changes. It keeps itself within experience, tests and classifies its facts, but to complete itself as science it must make all classified facts coalesce in a consistent system; and this eludes all attempts for its accomplishment while shut within experience. The task for philosophy is in some way to comprehend and systematize experience from the study and classification of the single facts of experience, and while possible only by induction through the insight of reason, has yet been attempted mainly in the exclusion or misapplication of all use of the reason. It may best subserve our purpose to show how our complete Psychology opens the door to a true Philosophy, if we here most succinctly show some of the more venerable, and later some of the most remarkable, instances of this misapprehension of what is demanded of philosophy in the interest and completeness of a scientific system. These deficiencies and deceptive pretensions to an effective philosophy may prepare us more fairly to appreciate the better pathway opened in a better Psychology.

SECTION II.: INSUFFICIENT THEORIES FOR COMPREHENDING ALL FACTS OF EXPERIENCE IN ONE CONSISTENT SYSTEM. It has been comparatively a plain and easy work to determine the facts of experience in their likenesses and differences, and thus to arrange them in distinctive classes, but to put the distinctive classes of physical, psychical, and spiritual facts together in one exact system has been the great problem of the ages. From the dawn of philosophy the distinctions of abiding and changing realities have been noted, and the difficulty of combining the

two in unity has very commonly induced the attempt to in some way account for both through the transformations of one or the other, so that from the first we have some who say: "all things stand," while others quite as peremptorily affirm: "all things flow." At the present age we have large numbers who determine all facts of consciousness from the objective side of experience; and others, perhaps as many, who determine all content in consciousness from the side of subjective activity; and then others divide in assuming respectively that there is an outer or an inner being, while each class uses, in constructing its system, only the opposite agency of that which it assumes barely to be. We will outline some of these sufficiently to clearly mark their defects, and to show that we must use the higher faculty of reason if the objective and subjective shall both be embraced.

i. *The Aristotelian Prime Philosophy.*—No account is made in this philosophy of any other than abiding conceptions, and these are attained and used as merely mental abstractions and generalizations. Only what has already been in the sense is taken into the understanding and is there elaborated into conceptions, judgments, and syllogistic conclusions. In preparation for the logic, the uniform collocations of the sense are taken as individuals, and such as are similar, each to each, are put together, and, passing over their individual differences and noting the likeness they have in common, these like individuals are abstracted and placed in groups respectively under their common name, and such specific group is known as an abstract *species*. Then similar species, rejecting their slighter differences, are abstracted and named, and such more generalized group is known as a *genus*; and a repetition of abstracted likenesses through graded genera at length comes to an ultimate abstraction and generalization that is a pure conception of the observations of all experience, and is here abstracted from all content. Such ultimate generalization is known as

pure being, of which nothing can be predicated and for which, thus, no judgment can be formed, and which henceforth stands out beyond all logical use for the understanding. The subordinate genera and species may be used as particular conceptions to put in an individual judgment, which may then be taken as a general first premise in a syllogism, and made conclusive for all the particulars it contains. The entire system of the Aristotelian logic may thus be determined, but it is not possible that its logical thought can complete empirical science by concluding all subordinate rejected genera and species in systematic universality, since its ultimate generic of pure being has already gone beyond logical predication. But just here, where abstract logic fails, the First Philosophy begins, and uses the abstraction of *pure being* most scrupulously within its rule of never transcending experience, even while it yet attempts by it to comprehend all experience in systematic unity.

This abstract pure being is in conception the superficial compass and periphery of all experience ; it is the retained matter in thought of all sense-observation which has been abstracted from all difference in form, all formal difference now lying without it. Thus all experience is separated into *matter* and *form*, which are the abstract counterparts of each other. The matter which has been abstracted from all form can be again put into any form, and is thus material cause, or the *potentiality* of form ; the form from which the matter has been abstracted can be again put upon the matter, and is thus formal cause, or the *actuality* of matter. But this material and formal causality, whether as potential or actual, is permissive and problematic only, and in neither case carries with it any efficiency or certainty. Something more is needed before we can have any science that the potential matter will take on all, or even any, actual form, and the philosophy goes on in the following way to supply this manifest need.

The pure being is an open conception, ready and favorable

to reception of form, even inviting to the coming in of any form, and is hereby known as *moving cause*. When this moving cause is taken as Primum Mobile or First Cause, it must move without itself moving, which it does by being itself favorable, and even desirable, to any and every form. And still as moving cause it must have its end in the moving, without which there could be no occasion or condition for the moving. This makes it necessary that the moving cause be also *final cause* as well, but as this must be without preventing at all the moving cause from moving without itself being moved, it is also necessary that there be the same end both to matter and form, the end in each being the completion and satisfaction of both. Thus the matter gets its form, and the form gets itself on the matter, through a complementary energy in both matter and form, which is the *entelechy* or ultimate essence and energy of the Aristotelian Philosophy.

But when put to the test of an actual experiment, the ambiguity of all this is at once exposed, and it becomes manifest that the process has all along been putting the *thought* of the thing for the *reality* of the thing. We *think* the abstract surface of the experienced universal to be *potential* for taking back into it all the forms that it has been abstracted from, and this *thinking* of the forms back within the pure conception of being is their *actuality*. The *potential* is, in truth, what cannot be except as an efficient causality be found instead of the mere thinking, and the *actuality*, in truth, is the forms put back one at a time in scientific experiment instead of in possible thought. The *moving cause*, in truth, is a supreme being loved by all and drawing all to him, instead of an empty conception capable of admitting all in thought; and a *final cause* is, in truth, an end of worthiness in supreme sovereignty itself, instead of an empty capacity on one side for the end of receiving, and an unbounded fulness on the other side for the end of filling, in thought, this universal vacancy. The philosophy deceives itself

and deludes others by making its exhausted abstractions the adequate vouchers for substantial realities and efficient agencies. The abstract matter is too thin for any reality, and is being only for thought, while the excluded form is put out from the actual and has recognition only in the thinking, and yet this actual in thinking put back into the thought-being is assumed to be valid for real matter in actual form. And then, further, if this were fully admitted, it would at the best be putting the conception of matter and form back precisely as it was in experience at the beginning of the logical abstraction and generalization, leaving the matter and form just as inexplicable at the philosophic conclusion as at its beginning. The Philosophy has thus manifested itself to be intrinsically unable to do the work of Philosophy.

2. *The Hegelian Philosophy.* — This is the direct contrast of the former. It seeks to comprehend all experience by the determinations of the subjective side of consciousness only. It abstracts from universal experience a pure spontaneous thought-process alone. The *Logic* assumes to start with pure *being*, which, not coming within any possible predication, is thus as if equal to nothing, while its abstract extent, left out of the conception, is the *non-being*, known as *nought*, and is equal to nothing. At this zero point the pure spontaneity starts in activity, and as to affirm being is at the same time to negate non-being, while a negation of non-being is but a re-affirmation of being, we have, in the necessary limitation of the one by the other, a logical circuit which determines the being as *Quality*. The quality is, *per se*, isolate, and a *nature* is assumed for it which spontaneously tends to pass its limit and seek others in the abstract extent beyond, while they also spontaneously tend towards it, and in this mutual gravitation the isolate being becomes being *for others*, and is now *Quantity*. The quality limited in its outgoing is *extensive* quantity or the quantum ; limited in the incoming, it is *inten-*

sive quantity or the degree ; and the *qualitative ratio* of the quantum and the degree becomes *Measure*. Passing beyond the measure, the being becomes another *genus* and grows on towards another qualitative ratio, in passing which another transformation is begotten, while that which passes through all measures, and is in all genera, is the *Essence*.

Essence is thus perpetually hidden in internality, and is entirely within the possession of the thinking spontaneity, and subjected solely to its determinations in correspondence with its own complemental conditions. Such co-operation induces the three following *Relations* : when Essence is barely thought out into externality, it is the relation of *substance and its manifestation* ; when undergoing its qualitative determinations in kind, it is the relation of *cause and effect* ; and when in coalescence essence and spontaneity complement each other, it is the relation of *co-action*, and as the spring of all objective cognition is known as *Actuality*.

In this last relation the logic has attained a thinking-agency which grasps all experience and has become more than abstract thought-process, even a thinking agent with power to shut and open all being from or into actual recognition. But this thinking agency has the essence now in its internality only, and logic can do no more for science. Internality must come out into externality ; logical involution must take on actual evolution ; and both physical and spiritual being must stand forth each in its exact phase of manifest recognition for place and period. To show how this is done is the special work of this Philosophy.

Logic has thus prepared for, and here passes into *Philosophy*, which is applied to the task in hand with much minuteness of detail and with long extension. It is important specially to note the point we start from, and the end we seek, and the means for locomotion we must use, in order that from the outset we may estimate what satisfactory progress from day to day we may be making in our journey. All past experience is now

in the thinking agency, just as the logic has folded it in ; and we now make it our philosophic design to externalize the whole in orderly and complete progression, as the only way to come, at last, to its full recognition, remembering that in the entire journey we can travel only by the use of such agencies in experience as we may make available, and which in their own natures work wholly of their own accord. We must think spontaneously, with no help from outside conditions. This is the genius of the philosophy, as that of the Aristotelian was, to think with pure matters that had lost their properties. The Aristotelian philosophy abstracted conceptions from all forms ; the Hegelian abstracts activities from their precedent occasions. Thought is taken to be pure spontaneity. The isolate quality in logic tended in its own nature to pass into the beyond, and the beyond tended to pass into it, and these complementary seekings make gravity, and such co-operative agencies must make up all our efficiencies.

All experience has logically infolded itself, and it now spontaneously seeks to unfold itself ; it was its logical abstraction to be internality ; it is now its philosophical evolution to become externality, and it needs nothing but that we watch its own mode of development, and in this alone recognize its only law of spontaneity. One must follow out the author's long march through every step to appreciate its exceedingly comprehensive minuteness and exactness ; but a much more summary outline will make manifest its insufficiency.

i. MECHANICS. In passing from the internality to external being the essence of all experience must have : *First*, its place and period, which as abstract from the experience can be only the place and period in the experience, and not the absolute Space and Time in which all experience itself must be, though it is taken in the philosophy as properly *Space* and *Time*. This gives us what is known as *Abstract Mechanics*. *Secondly*, there must be particular places and periods for the particulars

in experience ; and, in the limitation of these, by the tendency of quality to pass beyond its border, there must enter virtually both *matter* and *motion*, in which we have what is known as *Finite Mechanics*. *Thirdly*, there must then come the spontaneous transition of the essence in its nature to pass into the beyond, whereby its place and period will be filled ; and in this we have what is known as *Absolute Mechanics*. It should be remarked that gravity, in its transition to the external, as yet empty, can have no reciprocity and thus no other than an ideal centrality ; and that the Mechanical agency, internal and external, can have no regulative action and reaction, and so no conditioning save only in its own native spontaneities.

2. PHYSICS. Gravity alone cannot guide the thought to any point in unity, and is here supplemented by calling up from the inner experience the action of *Light*, and making it a counter-working with gravity.

Light, as taken in this philosophy, is spontaneous in its own nature, is without gravity, and its action is directly out and back, thus constantly moving in a right line which is perpetually refilled by its own return movement. It acts in all ways except as against gravity, and thus from all quarters meets in and returns from the gravitating centre, making that ideal centrality thus a perpetually revolving Sun, while its antithesis of withdrawing from an open point, and leaving it in shade, is the production of planetary matter. Lunar matter is light and gravity in petrified coalescence, and cometary matter is dispersive and volatile, tending to dissipation. The stars, in this philosophy, are luminous points, and the interagency of light and gravity is a perpetual digestion of the latter by the former into the produced elements of air, water, fire, and earthy material. This elementary production, everywhere diffused, is perpetually gathered and collocated by its interacting spontaneities in the Meteorological process. Material gravity as mass becomes in this process specific gravity in every part of the

same body, making the consideration of volume in the body necessary to its determination. Cohesion, as peculiarity of internal construction and so of capability to induce sound and internal heat, is the product of light acting on gravity, and when carried to its ultimate, terminates in the shapelessness of liquid water, liquid sound, or liquid flame, and in order to shape matter into individuality, further repeated resort in internality for the externally shaping agencies is necessary.

Magnetism is next taken, and its polarities give shape to one body; Electricity gives its polarities to two bodies, till at its extreme tension a spark dissolves their connection. The crystallization induced by the polarities and the transmission of light through rarer into denser transparencies give occasion for a peculiar theory of colors, and the ongoing of inner combustion in certain bodies determines their capabilities to give out their respective smells. And then Galvanism, as an amalgam of metality and electricity, induces the gases that give their acids and alkalies, from which come the chemical processes of composition in neutral salts and decomposition through elective affinities, and final rest in substances different from those in which the chemism commenced, so breaking up the circuit and making a continual chemical process impossible. All shaping processes by physical agencies are thus interrupted, and a total individuality of experience is, as yet, physically impossible, except by the introduction of inner life into externality, from which comes —

ORGANICS. Vital or organic chemism takes its ternary and quaternary combinations and perpetuates its process indefinitely, which no binary compositions in physical chemistry could reach. The life-force is still taken in natural spontaneity by this philosophy, just as had been the gravity, light, and all polarities in physics, differing only in this, that life with its equivalents in carbon, nitrogen, oxygen, and hydrogen, was a perpetuated process, which finally induces a total individuality of all par-

ticularized experiences. The planetary mass thus entering into the externality of living combinations, enters into a process of shaping and framing operations which give a skeleton basis for further forth-coming organisms. Granite, stratified rock, and disintegrated alluvium shape the continents and ocean beds, and insulated and promontory head-lands, and all the inner and outer spontaneities conspire to fit a frame-work for organic manifestations. This is known as *Geological Organics*.

Life, then, begins its manifestation in the waters, on the land, in the air, and geologic Nature has manifestly reached an era of spontaneous organic productions. Plant-life first appears in the waters and the moistened soils of continents and islands, with all varieties of root, stock, and leafy branches, and with reproductive sex-distinctions, and yet all elongations and connected propagations from the one stock. Distinctive individualities do not arise in plants. This is known as *Vegetable Organics*.

Then follow sentient vitalities, with nerve-system, and sense-organs, and digestive arrangements, and circulatory preparations, and loco-motive members, and permanent sex-distinctions through all generations. The one spontaneous nature works in and through all sentient organisms, maturing, and feeding, and assimilating the sustenance to the organism in all alike, and is truly the one individuality for all. This is known as *Animal Organics*.

But the total individuality now attained in the one assimilated and assimilating organism, universally the same in every part, is wholly incompatible with further generic propagation. This one life assimilation throughout, now attained, is inadequate to advanced propagation. The physical internality has entirely gone over into the external, and the universal is incompetent to use nature's spontaneities any further, or go out in sex-distinction and progressive generation any longer. The universal organism is one totality, and as organic individuality it has noth-

ing more to do or to know. The organic individuality must die out, particular and universal, and let the emancipated spontaneous soul come into full and free operation, and with this change we go out of the Philosophy of Nature, and enter on a new experience in the exposition and evolution of a new philosophic process, which gives us THE PHILOSOPHY OF MIND.

How all organic individuality dies out from all thought, is exposed in the process of the emergence of the sentient soul from bodily organism into conscious activity and ultimately attained rationality: and this process is detailed under the division of—

THE SUBJECTIVE MIND. The spontaneous agency which has done all the work in the evolution of Nature, has itself been nature, and has, in gravity, light, polarity, chemism, and life, acted quite unconsciously and as if in deep sleep, but now gradually wakes into consciousness, and comes to know itself and the nature that has prompted its activity. It is, as universal agent in nature, competent to negate that its distinctions of race in common experience, and those of natural temperament in several classes, and those of peculiar idiosyncrasies in particular cases, were of its own origination, and then to affirm that the dreams, hallucinations, somnambulism, mesmerism, attending genius as mentor and adviser in emergencies, were properly acts of his soul which is distinct from, while yet in and by means of his bodily organism; and then finally to come to the recognition that his organism, though his own, was yet other and aside from his soul, and that as a man, his body was instrumental, and all his sense-organs were auxiliary to his soul. This is known as *Anthropology*.

And then come the revealings that the appearances in the use of the special senses were his subjective procuring though taken through the bodily organism; and that the appetency to sense was distinct from the urgency to think in the understanding; and that appetite often conflicted with the teachings of

subsequent experience, till he learned to put his sense-soul, for its own best interest, subsidiary and auxiliary to the general thought of humanity. He thus came to make a permanent alliance of his sentient soul for its own good, with the general thinking-process of the universal ; and in this alliance the particular sense-soul becomes oblivious of its own organism, and cheerfully agrees to get its own gratification only in subordination to the claim of the universal, in which permanent surrender and covenant the soul not only left its dead organism, but lost its particular appetites in the better thought of the universal. Such annulment of particular appetite in the universal dictate is *reason*; and the process to it is known as *Phenomenology*.

Such reason is now true Mind, and it may study itself and learn and adopt its highest teachings. Its own normal activities attained in their order is *theoretic* science ; its regard for appetitive gratification controlled by the higher craving of universal Intelligence, is *practical* science ; and its adoption of the rule of highest Happiness in the highest Intelligence, is *free* science in both theory and practice. This gives us what is known as *Psychology*.

Henceforth the body is disregarded ; the sentient soul has lost its individuality in the universal Intellect, and this intrinsic correspondence of particular with universal beneficence is now the *actuality* in a much further development and higher existence than was the logical actuality with which we began the development of Nature. This is now known as *Objective Mind*, and is competent to go out in the external world of human experience, and reveal itself in its further philosophical development.

THE OBJECTIVE MIND. We need steadily to keep in view that the end sought in this philosophy is the capability to put the classified experience into a completed system, and that it is attempting to accomplish this by the activity of purely spontaneous thinking. It has attained and then discarded organic

individuality, and has now the combination of the spontaneous soul of nature and the universal thinking process in one actuality, as reason or Objective Mind.

This universal reason has its numberless particulars which, while not individual, are still separate parts in the totality of Mind, and each is participant in the total free will and personality precisely proportional to the quantity it has of the essential pure spontaneity of all. Each is complemental to the whole beside itself, and in every separate case the particular is the necessary co-efficient in the constitution of a full conception. The combination of the sense-soul and the general thought-process is the free personality which can act legitimately only in correspondence each with the other as the alternate party in the alliance. The appetitive in the particular personality may prompt the spontaneity to action, but the dictate of the thought-appreciation must decide the result, and the highest ultimate good must be the satisfied craving to reach the end of clear cognition ; and in this is the main-spring of the entire philosophy.

In coming to the recognition of human *Rights*, we have the following process. To put the will upon an Object is to enstamp personality upon it, and so far to appropriate it as to constitute the claim to it as *property*; and in this is opened a way for *contract* with another party, and an arrangement of rights between the parties is a *treaty*. Conflicting claims between parties must bring them to an accredited umpire, whose decision determines the *right* and *wrong*; and the personal *intention* as for or against is the origination of *good or evil*; and in this is the source of *Morality*. The rule of morals rests in the determination of what is the largest attainable amount of the common reason, and which will constitute the bond of unity in the given community.

In the *FAMILY*, this will be found in natural affection and mutual confidence, under parental administration leading to

patriarchal government. In CIVIL SOCIETY, the tie of common wants and interests constitutes a perpetual interdependence, which induces division of labor, distinct classes of laborers, and ultimately different grades of persons, making it necessary to introduce *municipal* arrangements. Then, the STATE is a separate totality of persons in civil communities, all held in the bond of particular participation in the total reason of the nation. This will originate *Constitutional Law*, putting the supreme authority in a representative of the total reason, leading to *Monarchical Government*, and loyal subjection to the Monarch and his constitutional authorities. Subsequently will arise *International Law*, holding the many separate states in the bonds of acknowledged comity, custom, and cherished precedents, and established treaties.

Putting these together will bring out the spirit of each state in its history, and finally that of all nations in a *Universal History*, in which will be found the Mind of all ages as the spirit of universal humanity. In such history the Objective Mind has found its full development, and then passes lastly into —

ABSOLUTE MIND. This is Mind in complete totality and absolute reality, manifesting itself in the now fully attained cognition of itself and of all in itself; as *Art*, in which the essential absolute Mind is signified in the historic forms best taken on by the Subjective Mind, known as the *form of the Beautiful*: *First*, in finest *human* form and features as *Classic Art*; *Secondly*, in the fancied or imaginary forms in which the spirit and genius of a people were represented in a sublimer style than in any particular personality, inducing the distinctive polytheistic figures and images of different nations, as *Symbolic Art*; *Thirdly*, where the peculiar genius of the artist shows the absolute as condescendingly consenting to the humiliation of any particular form, and which is termed *Romantic Art*. From this manifestation of the absolute as humiliated by any attempted

mode of formal exposition we are brought to the truth higher than art, that of *revealed Religion*. The absolute Mind itself has being only as it reveals itself to mind. The absolute is but the totality of its particulars, and is wholly exhausted in its distributed reason through all particular personalities. Each exists in the total, and the total exists in its particulars. The totality is the *paternal Creator* begetting the eternally *mediating* Particulars, and thus as both Father and Son perpetually abiding therein as *Eternal Spirit*. This mode of exhibition is the complementary conception of thought, not at all a revealed observation for the senses ; it is a matter of *faith* for the understanding, not of realized perception through any organism, and so admittedly it can have no scientific experiment. The unity of the Father, Son, and Spirit is solely in *Philosophy*. In this alone can it be cognized that the universal is one in all its particulars, and all particulars are one in the universal, and in this conclusion this philosophy stops short.

We have in our sketch given a comparatively short but fair epitome of a long process ; and though its fallacies are at its very commencement, it has been necessary to compass the whole in order to an assurance of its hopeless insufficiency. We weary in the long pursuit, and are in danger on this account of a delusive confusion from the complication ; but if we clearly recognize the incipient fallacy, it will be no difficult task to hold it in the light through all the journey, and thus know where we are at the end. The philosophy eats its cake at the beginning, and yet assumes to have it all the same to the end. Its thought-process is made up wholly within the understanding, and its reason is the product of a compromise between the sense and the understanding, and does not propose to itself any work that must take it beyond the common experience. We may therefore be sure that there is no portion of it too profound for a sharp Empirical Psychologist to scrutinize thoroughly ; all that is needed is to put every questionable part to the fair test

of accurate experiment. No abstraction it may make can have any validity, if attempted to be used beyond the reach of actual experiment.

The very first position is in a thought-process abstracted from a living thinker. It calls it a *living* thought-process ; but a living thought-process without a living thinker is an impossible conception. Pure spontaneity we have already tested never lives in an actual process except in a given condition, and the process is a result of the originating spontaneous activity which itself must be conditioned in order to the process. The imagination would be logically lawless that should attempt to put causal spontaneity into an abstract process. No possible experiment can be brought to test such a presumption. The next step is the assumption that pure abstract being is equal to nothing, and that all properties from which the pure being has been abstracted are not-being, and are nought ; but the process in the face of the abstract being begins to move in logical affirmation, negation, and re-affirmation, and completing the circuit, has quality *per se*. The process, the being, and the non-being, as also the isolate quality, all are pure abstractions, for which there can be no predicates. And yet the next step assumes that this abstract quality has its nature to pass its limit, and spontaneously go into the beyond for others, and also those others in the beyond tend towards it, and such reciprocal tendencies in the abstract qualities to invade each the other is *gravity*, working not one upon the other as in common experience, but self-repulsively each from its own intrinsic spontaneity. In this self-repulsive spontaneity is the causal agency which determines the entire forthcoming logic. All this is gratuitous assumption, and can find no possible empirical testing for it. And when the philosophy works out in the development of nature into externality, this gravity, supplemented by light, polarity, physical and organic chemistry, and sentient assimilation, successively and spontaneously works up all experience

into total individuality. No scientific experiments in nature can find such causal spontaneities; and yet, in the discarding of the organic individuality, these physical spontaneities come out as the soul of nature, and emerge from bodily form into conscious perception, appetition, and finally are received in permanent coalition with the original thought-process, and thus constitute the Reason, or free Mind of the universe, which at last as absolute Mind passes through art and religion into self-knowing and all-knowing Philosophy. Such an arbitrary abstraction and transformation from veritable experience can by no means prove itself to have brought that experience into systematic unity.

The Aristotelian logic attained pure abstractions of objective conceptions, convenient for use in general judgments and syllogistic conclusions, and while the conceptions were immovable and changeless, the spontaneity of the understanding could turn the pure conceptions from side to side, and thus illusively act the part of substantial and causal connections within the changeless conceptions; and then the philosophy took the abstractions as potential for all forms, standing for us thus as material cause, and as open to all forms, standing for us thus as moving cause.

And just so on the other side, the Hegelian logic attains pure abstractions of thinking spontaneities, and annihilating the objective conceptions puts subjective spontaneities as a nature within their places, and works out its judgments and their relations; and then the philosophy takes these physical spontaneities and makes a total individuality of nature. Then, discarding the individuality, the abstract spontaneity is made soul of nature, and concrete with the pure thinking-process it becomes reason, or objective Mind, which is competent to re-duplicate itself by using, at pleasure, either its sentient or its thinking side. Aristotle puts his matter into mind and the mind works it into nature. Hegel puts spontaneity into matter and

makes nature out of it, and then its soul is put into the pure thinking, and the particularity and universality together become absolute, the philosophy cognizing itself and all things as within itself. The real is discarded, the ideal is pursued, but all in such a mode that its ideal is as unimaginable as its discarded real. It might seem quite reverential for a Hegelian to use Kepler's words: "I think thy thoughts after thee, O God," while he is intently studying the universe ; and yet the seeming reverence becomes arrogance rather, if the true meaning of the philosopher is, that there is neither a God nor a Universe to be "thought" except as I think them.

All that can be done, by a logic taking one side of experience only and disregarding the other side, has been effected in these two systems respectively, each on its own side ; but while they may give the forms which the facts must take on respectively, they cannot determine the facts. The logic must be tested by the facts, in both cases, and not the facts by the logic in either. So far, it may be well that the logic of both has been constructed. But the philosophy of each is alike empty and insufficient. They both not only leave out each its opposite half of experience, but neither can carry its own at all beyond experience. For all purposes of uniting the fact of experience in a consistent system, they are worthless, and yet this very service is all for which any philosophy is needed.

3. *The Kantian Philosophy.*—Kant was before Hegel, and many who have followed Hegel's philosophy to the end and found its insufficiency, are returning to Kant, either expecting to rest in or improve upon his system. This makes it expedient to say, in short, what are its defects in reference to its competency to complete a general empirical science.

Kant's controlling design was, to see if he could not succeed better in the interpretation of cognitions, by taking the subjective spontaneity as his regulative principle, than had been done by the till then ordinary method of taking the objective inva-

sion of the senses, as principal guide. With this end in view, Kant found that the human mind had cognitions of *à priori* truth in Space as precedent to place, and Time as precedent to period, in the truths of pure mathematics, and also in those of pure physics, and that thus there was consciously in human experience a knowledge of what went beyond and outside of experience, and were truths of pure reason only. Could we not, then, by the help of such *à priori* truth, connect facts of experience into judgments which would reach quite over beyond experience? This he assayed to do, and the outcome of this attempt is the Kantian philosophy. These *à priori* truths of space and time were immediate, in the sense, and known as *pure intuitions*, while those of geometrical constructions and physical connection were already to be found in the understanding, and were known as *primitive conceptions*. Whether intuitions or conceptions, they were alike *pure forms* given in and with the sense and understanding respectively, and must remain empty except as filled by actual experience through the senses, and then by logical judgments in the understanding. When thus filled, the pure and primitive forms became empirical realities in the perception and the judgment. There must thus be a permanent *noumenon*, or "thing in itself," persistently abiding out beyond experience, ever ready to be brought within experience, or all sense-observations must be in vain and all thought must be empty. And yet no faculty of perception or judgment could go back of the senses to attain any sort of cognition of this *noumenon* whatever.

Here Fichte and Hegel parted from Kant, saying, quite logically: Our proper end is cognition, the knowing of what knowledge is, and certainly this assumed necessity for the *noumenon* which cannot be known, in order that by it we may know, is absurdity not to be tolerated. The aged Kant still insisted, and the younger disciples deserted; hence the philosophy of the spontaneous, which Kant began with the *noumenon*,

was carried out, as we have already given, with an entire rejection of the thing in itself outside of the sense-experience.

This persistent "thing in itself," back of all phenomena, adopted by Kant, doubtless kept him back from a philosophy resting on the attainment and use of a combined physical soul and thinking activity, as a spontaneous reason known as objective Mind ; and the rejection of it did, with as little doubt, push Hegel to the endless process of such an unimaginable mode of thinking ; but in the ultimate conviction of its insufficiency which must come, and the turning back to the stand-point which Kant would not desert, the unsatisfied Hegelian is in a better philosophic state for a correct appreciation of the Kantian result than the author himself. Seeing in Kant's work what the understanding can do by the help of the retained *noumenon*, and that nevertheless the ends of philosophy were yet as far beyond reach as ever, the disappointed Hegelian, still thoroughly disappointed in Kant, will be the more surely driven to the true point of inquiry now arising, and will ask : What may be done, or rather what must be done with this "thing in itself," which is now found indispensable, but has thus far been unavailable for the consummation of our purpose ?

By his *à priori* space and time, and the spontaneous activity of the primitive apperception, "I think," Kant could construct all pure intuitions, and connect all pure conceptions in synthetic Judgments, and thereby attain a pure schematism of the entire human understanding, and then could assume the "thing in itself" to be adequate to fill the empty forms, thus giving substance and efficiency to his philosophic schematizing. But how this *noumenon* outside all experience could fill all empty forms in exact correspondence with experience, the "I think" was utterly incompetent to expound or even imagine. This would be a work impossible to a faculty shut up hopelessly within experience. And beside, there is the *à priori* sphere itself, the absolute space and time, and the *noumenon*, which involves the

cognitions of Spirit, Immortality, and Deity, the convictions for which are perpetually cropping out in experience, while, for all this sphere beyond "the thing in itself," there is no *noumenal* mode for conceiving and much less for intuitively beholding. In short, the Kantián philosophy can tell us nothing about superphenomenal substances and causes, and nothing about the thinking soul, its immortality, or its God, and thus can never schematise any forms for them, or if they obtrude their semblances in imagination, it must be utterly beyond its capability to give any reality to them. The pure reason puts up in consciousness the conviction of these *a priori* truths, and then the philosophy sets the thinking activity of the understanding, merely, to cognize them, and the attempt terminates in the fully exposed antinomies where at length Kantianism sticks fast.

In practical Morality, also, the pure Reason gives the *a priori* truths of freedom and obligation, as in physics it had given *a priori* space and time and the "thing in itself," and the use of the *a priori* liberty and the ought avails to fill out all the pure forms of an immutable and universal system of morals. But just as it had been in the philosophy of nature, so is it here in the philosophy of Morality. The perpetual use of the *a priori* freedom, and the knowledge of what it essentially is, is left as inexplicable as the *a priori* space and time and the noumenon. Back of all moral experience is "the categorical Imperative," and the freedom of the human mind, with no other explanation of what and whence they are than that they are *a priori* given in pure reason ; they are then taken in the understanding, and all the conceptions of freedom and duty and responsibility are determined only by the analogies and deductions of abstract logic. The dignity of the man is in his intelligence, and his liberty is in his capacity to think and judge soundly, and then to adopt and follow the last dictates of the logical understanding. *A priori* truth can get no exposition till it has passed through the logical process and come out in

logical form, as the filling in of what else had been empty. Thus when we would logically establish our moral freedom, we bring up in an Antinomy as remediless as those before found at the terminus of Material Philosophy.

When Kant's pure Reason had given to him its *a priori* truth, instead of turning over those truths to the use of the understanding only, there needed a clearer psychological test of the faculty of reason, and its insight through and beyond the provinces of sense and thought, and its right, in its own authority to induce the truths of substance and cause, and space and time, and freedom and duty. It was needed then to work out all the philosophy in the light of this tested reason, and to see that its problems could not possibly be solved by any faculty that must keep its whole work restricted to and wholly shut in by experience. If our philosophy take in only the physical facts of experience, we must still find an adequate cause and sufficient reason for them in order that they should thus have been; and still more if it take in the vital, mental, spiritual facts in experience, it must acknowledge a rational spiritual faculty which may recognize and expound its own facts, and hold all physical facts within the comprehension of a spiritual intelligence. The Kantian philosophy, both on its physical and its ethical side, is valuable for its introduction and defence of the *a priori* truths of pure reason, but it well nigh cancels all its value in taking up these *a priori* truths, when the author gives them over to the lower faculties of sense and logical thought, neither of which can do other than to distort and debase them.

4. *The Philosophy of Natural Evolution.* — This is another attempt to attain a philosophy which shall complete an empirical science. It runs in this way: Experience begins with the fact of *co-resistance*, which comes into consciousness through the contact of an impress upon the sense, as in touch, with a repress from the sense. That which thus begins with simple *co-resistances*, goes forward by putting these in composition,

the simples becoming complex and more compact and clearly limited as the process goes on. This process is known as *Evolution*, and is defined as "*a change from an indefinite incoherent homogeneity, to a definite coherent heterogeneity*." This definition, though it must not be permitted to assume that such a change from the homogeneous to the heterogeneous ever occurs, except when tested by accurate experiment, may be said to give the "*law of evolution*," meaning by law an invariable *fact of order* scientifically tried over.

In assigning a *cause* for evolution, this philosophy finds itself in a logical dilemma. The fact of uniform order in experience is itself the law and only cause for evolution, and as the philosophy inevitably restricts human knowledge within experience, it is not possible to go outside and find some original law-giver or prime efficiency beyond experience. But when we make evolution begin with a fact already given in experience, how can we know anything about that beginning? We cannot find in this first fact either the law or cause for the successions which may be, since their order is not yet a fact, and we cannot begin to think about development, or to know any thing about it, until it has passed into actual fact. We cannot think in the absence of all cause, and as we cannot know any cause for our first fact, we cannot begin our thinking. The escape from this dilemma is sought by saying that there must be an unconditional cause, and since we *must* have it, though we can know nothing of it, we may logically take it as though it was given, and yet, as all our knowledge is relative, we will use this absolute cause only as a relative, just as we should have done if we could have actually made it a relative by bringing it within our experience. For all practical purposes it shall be a conditional cause.

But this introduction of an absolute cause, which we are going to use as a relative cause, only helps us out of one trouble by plunging us in another. Or rather it puts the trouble a step farther off, where we may not see it so clearly, but where it

remains unchanged, and where "persistent" thought, if it be also profound, must surely find it. This will appear if we closely note what the philosophy makes this unconditional cause to be, and what it attempts to do with it. The co-resistance which gives the content in consciousness, is the product of both an outside impress and the organic repress, and we can have no consciousness except in the action and reaction of these two. Which then of these shall we take for the unconditional causality? The philosophy, doubtless preposterously, takes the objective impress, and finds in the invading activity the efficient and regulating cause. The outer material is thus made the cause of the whole process of evolution. Every point of co-resistance which stands as content in consciousness is the constituent matter of our experience, and is both the substance and cause which is here to have its philosophical evolution. Let us see how this works.

If we abstract the points of co-resistances, there is left for us the places they have filled, and these are abstract *space*; and if we abstract these points one after another, we have their successive periods remaining, from which we have abstract *time*; thus both Space and Time are known as determined by co-resisting force. So also if we make an analysis of *Matter*, we run the conception up in the last resort to the co-resistances, and find matter to be constituted *atomistically*, the atoms being collaterally in contact, but each excluding the others at its surface, and thus all matter being ultimately impenetrable force. And lastly, if we closely analyze *Motion* we find it to involve material force passing into different places in successive periods, and thus to be the most complicated of all conceptions; embracing matter, space, and time, but all at last resting on force. All the elementary constituents of experience thus are found to rest ultimately on co-resistances or forces. The first content in consciousness is thus relative force, but as a "relative" cannot possibly be a "first," we are obliged to assume an absolute

force, though we cannot think it, as the prime cause of all relative forces. We cannot think absolute force, for we can only think relatively ; but as we cannot get along at all in our thinking without such force, we will take it as in itself the same yesterday, to-day, and forever, though using it, as we necessarily must, as if it were a relative, and as if experience itself ran back beyond all our conception of it. It runs through all the changes and varieties of experience, but is itself *persistent and equivalent*, through the past, in the present, and for the future.

But what a jugglery is here, however adroitly played ! The absolute force, though openly introduced at the outset, is at once covertly removed, and we have nothing but relatives after all. We have set it up in order to start our thinking, and have set it aside, as our logic compels us to do, the moment we begin to carry out our thought. This absolute, which we are using only as a relative, becomes really a relative the moment it is closely scrutinized. Though called "absolute," and "persistent," it is material and mechanical only. Its matter is intrinsically co-resistance, and thus subject to all the natural conditions and relations of antagonistic action and reaction. It may have excess of energy on one side and thus move, but it must either push or pull according to the invariable order of experience. It may be indefinitely analyzed, but its minutest atom is a place filled, and has an impenetrable surface. There may be perpetual conversions, but it must be in the composition and decomposition of these independent and impenetrable atomic bodies, which admit of continual re-arrangement, but not of the dissolution of the co-resistance. There may be larger or smaller rhythmic oscillation, but only in conformity with empirical equilibration. There may be the gaining of facilities in channels of removed hinderances, but only in the transfer of the hinderances to other positions. There may also be passages from one genus to another, but it must find its example in actual experience, and if contradictory to experience, the first case

is a miracle breaking in upon uniform law. There can be no increase of forces in experience but as derived from the unconditioned persistent force, and at just so much exhaustion of the absolute. Evolution is no augmentation, but a transfer of forces from the unconditioned, which must somehow be balanced across the chasm between pre-experience and passing experience. To expect to attain any help to our thinking by using the unconditioned as a relative is thus an ultimate absurdity. But the effort to attain it so elaborately put forth, is a profound though unwitting testimony to the truth of the higher faculty of the reason. The understanding does not overleap itself and seek absolute truth. If we had no rational faculty we should have no aspiration for unconditioned causes in any way.

And now here the remark is quite obvious, that we must as unavoidably assume an adequate unconditional cause for the more important and prominent facts in the æsthetic, ethic, and religious experience of man as for those in his physical experience. If we assume only a persistent force adequate for thinking physical facts, we shall, of course, neglect the whole spontaneous and rational side of our experience, and get a philosophy partial, insufficient, and misleading. Natural Evolution, however, does assume only a persistent force that is material and mechanical, and thus we may foresee that it must leave all human spontaneity, rationality, and liberty utterly unthinkable by it. It will shut itself up in the physical portion of experience, and be blind to all mental and moral facts which it cannot derive from material sources.

Taking this persistent force with all its relative gravities, polarities, chemical equivalents, and affinities, this material evolution may construct a universal system of Nature hypothetically, which shall have much plausibility and ingenuity. Yet, so soon as it attempts a philosophical Biology out of material mechanics, and would make plant-life arise out of the mineral kingdom, and then the animal from the vegetable kingdom, and also

evolve all species and genera in each kingdom, the higher from the lower, we are obliged by our allegiance to logical law and scientific authority to take the whole attempt sternly back to the test of scientific experiment, and force the philosophy to get its facts of equivocal generation from mineral matter, of sensation from plant-life, and of human science, morality, and religion from animal appetite or brute reproduction, without a miracle. The test is not at all in suggestive classification nor embryo logic gradation, but in an actual fact of transition.

When the philosophy essays to accomplish this, it comes to a termination that is very much worse than a mere failure, as the following points will clearly show :—

(i.) *It runs into the hopelessly inconceivable.*—The position is the obverse side of experience from that of the Hegelian philosophy : that took the spontaneous, and left out the mechanical ; this takes the mechanism of matter, and shuts off all spontaneity. We have seen the former to be throughout causality without substance, and shall see this to be superficial substance with no causal changes. Each is equally fatuous ; but while the first must go and yet get nothing, the second must perpetually stay at the surface and possess nothing beneath it. The one we have seen to be impossible to a logical imagination ; we now show the other to be an impossible logical conception as a working agency.

The unconditional abiding Force is out of consciousness and beyond experience, but is yet assumed to be available for use in conscious experience, as a relative, and thus, though unconditioned, just as valid within consciousness as if really a relative content of consciousness. We will use it in this fashion and see what can be cognized by it. We suppose a material atom held at rest by balanced co-resistance, and thus must it ever remain if left to its own resources. We again suppose an excess of force to be given from the persistent unconditioned force which shall yet act as a relative force upon one side of

the co-resistance standing in isolation ; the atom then must move in and with the unbalanced co-resistance direct, equably, and interminably, if left still to its own resources. But whether resting in the balance or floating in the flow, what is there reaching that non-spontaneous atom, which can tend to awaken conscious thought within it? And still more, how can we tell from whence the excess of the superadded force had come? Suppose the resting atom to be struck by, or as moving atom to itself strike in contact with, another atom : what, in the impenetrability of both, could tend to awaken conscious thought in either, if both were destitute of spontaneity? The surfaces in contact entirely excluded each other, and neither had any intercommunion. If one be spontaneously receptive, it may take the other in its grasp, define and distinguish it, and thus become conscious of it, otherwise the object may as well acknowledge the subject. If both reciprocate in correspondence, like two living hands spontaneously ingrasping, each will be alternately subject and object in mutual recognition ; but then, even, it must be only as spontaneous subject and not as object destitute of spontaneity that each is in the other's consciousness. Where both are but mechanical, material, they each expel the other from any communion. The rigid rule of the excluded middle sunders them at contradictions. No unconditioned force, however persistent, can be conceived as coming within the field and working in thought with the understanding, except as by action and reaction ; complemental co-agency is of necessity purely in spontaneity.

This difficulty is sought to be evaded by multiplying the intervening periods to such a minimum of time as thereby to lose all consciousness of making a leap or leaving a gap in the evolution, but not until pure time shall be conceived to get somewhat from nothing can this illusion mislead the logical understanding. The plane the least inclined from the exactly horizontal position can be conceived to send the persistent

force, unconditioned or relative, no whither than in the inclined direction. And just here also is the hidden delusion of all the plausibility given to the argument of the so-called "*natural selection*." We never say of the dynamic excess, which has raised the mountain ranges and then left their statically balanced sides to buffet with the storms, that "*natural selection*" has been here evolving the planet's dimensions. It is when some adventitious force has elevated a spontaneous individual to higher excellency than his fellows, and thus made him more competent than they to fight the battle for life, that it is said, "*natural selection*" comes in and a new species is evolved in him and his posterity after his like. The myriad years in the geologic eras, it is also said, give abundant time for this "*natural selection*" to have brought up thus all living species, and all the lost species and rising genera that have dropped out of fossil preservation, so that probably there has been no chasm in the evolution from the protozoa to the highest mammalian. But what has natural evolution to do with spontaneities? Its persistent unconditioned Force is material mechanism only, and this gives no capability to think the development of spontaneous individualities. If there is spontaneity outside the common consciousness, then miracles are no mysteries, and a created experience is a thing in course. Now this at once induces another fallacy of this philosophy :

(ii.) *That it is in perpetual violation of the most stringent rules of Empirical Science.*—Nothing, it says, can be known beyond relatives. To think is to distinguish ; and, with nothing but primitive impenetrable atoms, all thinking must, from the necessity of the case, be that of integration and differentiation only. Composition and decomposition, and thus perpetual conversions in rearrangements, make up the whole logic of material evolution. There can be no perfect combinations, and only collocations, or, as they are termed, "*agglutinations*," can occur. The selfsame primitive atoms last forever.

These are primitive principles in the philosophy of natural evolution, and yet that which is stated as matter of fact in its own definition, that the homogeneous changes to the heterogeneous, is quite in violation of them. No test of scientific experiment has as yet been found where one and the same kind passes into another kind. Even in physical experience, as with gravity, heat, polarity, binary chemistry, etc., no actually observed fact of any one of these distinguishable forces going over and passing by direct conversion into another has been verified. By its own admission we cannot think of a first relative force except as an unconditioned persistent force precede it; and as we must think in order to cognition, we must unavoidably postulate such a persistent force, even if we use it only as a relative. Both of these alleged requisites for thinking are in violation of our affirmed restriction within experience. We go out to get our unconditioned, and then we assume it to become a relative, and use it as such in experience, since we cannot otherwise think. But will even unavoidable thinking in violation of logical rule secure valid cognitions? Thus in physical facts, natural evolution transgresses its own rules.

And yet more widely unscientific is its practice as it passes from physics into Biology. Life, it says, is evolved direct from matter by chemical and magnetic forces, and yet no accurate scientific experiment has passed from mechanical matter to vital organism by any process of equivocal generation. And so all the regulated gradations of living organisms, vegetable and animal, through ascending specific and generic series, are taken as indicative of natural evolution, and the origin of species is supposed to have been induced by sex and natural selection, even though with the most earnest research no experiment has been found sufficiently exact to distinguish variety of race from peculiarity of species, and find an unequivocal example of the natural conversion of one species into another. So far as yet appears scientifically, such a case once occurring would be as truly a breach of natural law as an original creation.

And so, still further, Biology is deemed to have been evolved into Psychology and Sociology and Morality, by the transmitted descent of atomic re-arrangements and ancestral conversions of forces, propagated and perpetuated through unnumbered generations. But scientific experiment has never tested such transmission, nor verified such propagation through any section of the growing experience. All past experience is exactly the other way. Intellectual, moral, and religious education and instruction have preceded the elevation, and when neglected, barbarism has followed. Social melioration has never been the product of natural evolution.

We thus see that this philosophy attempts the inconceivable, and goes beyond the test of scientific experiment, and now we say of the philosopher : —

(iii.) *Give to him what he asks, and make him take it, and he will shut out and contradict all common experience.* — He asks us to let him have the co-resistance given in the sense-contact to be altogether mechanical force, action upon the sense, and re-action by the sense, and thus the matter in the field of consciousness to be in the last analysis so many points of impenetrable atoms, which we cognize just as the mechanical force impresses them. Give and make him take this, and then all cognition in sense-experience ends with the mechanical impression, and there is no spontaneity on the organic side attending and distinguishing and uniting subject and object. The mechanism alone knows. But he cannot carry the common experience with him. All common conviction is, that while the outer impresses the sense, yet it is the inner activity which does the knowing, and that this is wholly mental and not at all material.

And again, the philosopher asks that he may have his chemical elements to be material, taking those most fit for his purpose, in stability of some and volatility of others beyond all other matter, and thus that the chemistry which builds up the nerve-

organism be taken as mechanical only. This continually adjusts inner relations to outer environment, and makes waste and supplies it by matter from matter, and reproduces its kind by sexual generation in natural selection, just as one material machine previously adjusted might make another like the ancestor, and in this way life is evolved from matter; then by happy incidents some new machines come up more excellent than common, and work out the weaker, so that in the long ages the mechanism grows better and begets a better progeny. Grant all this, but make it clear and hold the philosopher to it, and it will so contradict all common sense, that only such machine-born minds as his own will follow him.

And yet further, he asks that these highest specimens of mechanical descent be admitted to have so worked out their nervous organism toward their nourishing environment, and by long use to have so opened and cleared their channels to an inner use and enjoyment, that at length all special organs have been evolved, and afferent and efferent nerves with their ganglionic and co-ordinating centres are completed, and now shocks from without are so modified in their motion through this machinery within, that like nicely arranged musical chords the lines vibrate in exact harmony, and the mechanism itself makes and hears and enjoys the modulated movements. So let the philosopher have his way, and yet force him to travel it in the full light that all is material machinery, begotten entirely from a mechanical ancestry, and that it works and perceives and thinks and is gratified only mechanically, and never spontaneously, and however mistakenly admired the philosophy may be, most surely the common experience will contradict it and ever keep itself outside of it.

And beyond all this, he asks that the Biologic experience through the nerve-mechanism be taken as the source from whence comes all our Psychology. These nerve-shocks from without, and their consequent modulations, have their results in

the machinery, and their expected repetitions are joyfully or reluctantly anticipated. Memory awakens ideal imaginings, and induces thoughtful estimates and judgments, and comes to rational conclusions and practical resolutions, and an executive will shapes future conduct and habits ; and this forces the inquiry whether the choices of men are free or fixed with no alternative ; and the philosopher asks that this, his own stated decision, be allowed him as the true solution of the entire problem of freedom : "To reduce the general question to the simplest terms," he says, "Psychical changes either conform to law or they do not. If they do not conform to law, this work, in common with all works on the subject, is sheer nonsense ; no science of Psychology is possible. If they do conform to law, there cannot be any such thing as free-will." With him, the whole process of evolution goes into the executive will, and has come down in the biological nerve-system, through all physiological and psychological changes of the long past, in which mechanical descent it is taken to be impossible that there should have been a gap, or a leap, or an alteration.

And now, it should be noted, that it depends altogether on the meaning of the "law" used, whether all that is said by any one on the subject of psychical changes is "sheer nonsense." What this philosophy means by law is clear enough. All changes, physical and psychical, are mechanical, pushed out or pulled in as their relations determine, whether from the persistent absolute or the variable relative ; and if we grant what is asked and the philosopher is held to it, he will be in direct contradiction to all common experience. He can neither take common minds with him, nor give any conclusive reason why he should not go to them, rather than they should come to him. They feel responsible to others for their treatment of them, and hold others in like responsibility towards themselves. They recognize rights and duties, and not merely appetite and gratification, and they know that if they trench on the rights of

the philosopher or refuse to pay him his dues, he has also the same feeling, and will exact of them the like responsibilities. They have the most ineradicable conviction that humanity as it is could not live in social communion for a day under the sway of submission to the strongest, when his superior force should be regulated only by his appetites ; nor can they possibly see, nor can he show them, how even appetites can get in and act upon mechanical force. Their law, whether they can expound it or not, is that of their inner mental spontaneity guided by outer conditions, and common experience can never be compassed and systematized by any possible arrangement of mechanical forces. The philosophy of natural evolution is not merely a failure, but is quite intolerable to a manly mind and ingenuous spirit. It insults all honest claim to self-respect, and is a mockery of all mental, moral, and religious aspiration. To avoid the charge of Materialism, it at last retreats to the assumption of an original movement back of any matter to be moved and of any mind to modify the motion. If Philosophy is truly love of wisdom, and if Science is the approbation of systematic integrity, neither Philosophy nor Science will ever satisfy itself by any attempted working of mechanical forces through "natural selections."

We have now, adequately for our present designs, considered the main philosophical theories for bringing the classified facts of empirical science to an accurate and consistent system, and have found their particular defects and their insufficiency altogether to bring common experience into scientific unity. The theories we have noted may be taken as generally inclusive of the philosophy of all past ages for compassing empirical facts by any modes of thinking in the logical understanding. With the exception of Kant's admission of *d priori* truths, they are all, Kant's not excepted, wrought out in the logic of the understanding only ; and hence it has been quite within our power to review in a summary way their respective works, while keeping

ourselves quite within the province of an Empirical Psychology. Their whole compass of what may be called metaphysical research has been inside of experience, and just on this account it has been impracticable for them to comprehend experience, and thereby impossible that they should have found philosophical success. From the nature of the case, the faculty of the human understanding, which receives all its materials from sense-observation, must find it impracticable to overlook its own field of consciousness and tell what are the precedent conditions for the validity of its conclusions. It has, however, abundantly convinced us that a completed science must put its dependence upon the help of a higher Faculty.

SECTION III.: THE PRECISE ATTITUDE OF SCIENCE AT THE OPENING OF A SUFFICIENT PHILOSOPHY. Particular sciences have their respective facts, and the classification of these facts after methods somewhat diversified. It is expedient, however, for a general empirical science, which is to comprehend all experience, that it attain a classification fixed and abiding, with its method determined after the order by which it has come to the cognition of the facts, and by their relations to each other as they stand in this intellectual process, and this can be found only as the result of an accurate Empirical Psychology. Our mode of testing the validity of the facts given in common experience has been by subjecting the old experience to a new trial, in a similar case, by an accurate, and, if may be, better assisted observation. Such criterion is also ever open, not only to the teacher, but to both his pupils and his critics. There is, however, a very careful discrimination to be made in reference to the faculty by which the fact may be ascertained. Some facts are cognized by the senses, some by reflective thought, and therefore only in the inner consciousness, and still some others only by the insight of a higher faculty than either sense-perception or reflection in an internal consciousness; and it must be delusive if the inferior faculty be put to the task of

testing facts which can be found only in a higher province. Life is beyond the perception of any sense, however instrumentally assisted the sense may be; and, also, the effort to get hold of nature's distinguishable forces by subjecting mechanical matter to chemical solvents is and must ever be illusive. We gain much in getting the phenomenal changes of matter through its compositions and decompositions, but the pure mathematical statics and dynamics which lie under and hold on through all these transformations are cognizable only to the insight of reason.

We have all along been very careful so to put our testing experiments as not to confound mechanics and spontaneity—physical, psychical, and rational facts—in the same category, and have thus been able, while getting at all the facts of experience, to get them also distinctively in their classes. We may give them as follows:—

I. PHYSICAL SCIENCE.	{ 1. <i>Mechanical relations.</i> 2. <i>Organic connections.</i> 3. <i>Sentient affections.</i>
II. PSYCHICAL SCIENCE.	{ 1. <i>Re-collecting past perceptions.</i> 2. <i>Logical conclusions.</i> 3. <i>Scientific attestations.</i>
III. RATIONAL SCIENCE.	{ 1. <i>Aesthetic Standard of Taste.</i> 2. <i>Philosophic Law of Truth.</i> 3. <i>Ethical Rule of Right.</i>
IV. THEISTIC SCIENCE.	{ 1. <i>God as a postulate of Reason.</i> 2. <i>Divine authority for human history.</i> 3. <i>Tripersonality in God's activity.</i>

These four distinctions of science are determined solely in their distinctive modes of attesting the validity of their facts, and in each case the respective sub-divisions have also their classification from their respective varieties of testing, and in

all cases of the Divisions and Sub-divisions, the testing validity rises in strength and comprehensiveness to the last, while only in the ultimate sub-division of Tripersonality can the systematic unity of human experience be attained and vindicated. In the first and second Divisions we have the testimony of experience only, within which empirical science as such is limited; in the third and fourth Divisions the validity stands on the unassailable demand and supply of a sufficient reason, the attempted gainsaying of which is a direct absurdity. We need only the most cursory examination of the process.

In *Physical Science* the testing experiment rests solely upon the uniformity of experience in all the sub-divisions. In all material rest and motion there is the uniform relation of mechanical phenomena in the like cases and circumstances. The resting, or the moving at the same rate and in the same direction, is the same except as some interfering facts occur. So also in Organic connections; experience is invariable that the organism is successor to a similar ancestor, and is followed by a similar progeny to itself, and that the growing changes in the individual pass in the like order for the same species, and in all sense-affections the like antecedents in the similar sense-organ induce the like consequents. This fact of uniform experience is also the law, without reference to any efficient, precedent, or intermediate, determining the invariable succession.

Psychical Science has a different mode of testing its peculiar facts, which, in all its sub-divisions, are determined by a spontaneous activity consciously under the leading of its appropriate conditions. The re-collection of past perceptions has its conscious spontaneous arrangement of the old facts together in their relative places and periods and interconnections, thereby presenting the old scene anew. And then, in logical conclusions, there is a spontaneous construction of the syllogism and deduction of the conclusion, all in conscious process according to given conditions. And finally, in scientifically attesting any

past occurrence, there is the conscious spontaneous movement to the recapitulation and experimental verification of the old fact by the new experience. In all such cases, the test is primarily in the consciousness of the spontaneity and the leading solicitation of the proper condition. The activity is consciously of its own accord, while the condition, though concurrent, is from other sources. A machine may be so contrived as to move another on a given occasion, but the spontaneous agency, unlike the machine, not merely moves another, but first moves itself. But while the spontaneous agent is conscious of his own spontaneity, he is not conscious of another spontaneity; and the only way to the conviction of a common spontaneity is through the uniformity of others' acts to his own exhibited in common experience, thus making a common experience the ultimate criterion.

Here is the limit of psychical spontaneity acting alone. The understanding of itself can make no more than this of all that the senses have given over to it. Henceforth the light from a higher faculty must reveal to it and interpret for it the meaning of that which has all along been assumed as standing before it in order that its conditioned activity should have any signification. We have already added the faculty of reason to the intellect, as competent confidently to infer efficient causes through the facts which they have produced, and thus from what is to note what must have been; and in the use of such faculty we have also added the æsthetical, ethical, and theistic emotions and volitions to our Empirical Psychology, leaving them as yet inexplicable by any logical relations further than their uniform order as they are found in common experience. We can give no explanation of them except through the faculty attaining them, and this, in the failure of the understanding, is the precise point to which we have come. The help of reason can give to logical thought the competency to proceed further onward in the testing process toward completing the system

of all common experience.' This attestation of facts in the reason beyond that in psychical spontaneity is Philosophy, and we come now, as we could not have done before, to the opening way of philosophy with full confidence in the use of a sufficient faculty. We know we can meet every assailant of our testing experiment by the unavoidable conviction of self-absurdity.

SECTION IV.: THE INDICES WE ARE ABLE TO GIVE TOWARDS A PHILOSOPHICAL COMPLETION OF GENERAL EMPIRICAL SCIENCE. We have yet the two classes of the Rational and Theistic sciences with their sub-divisions, to which the test of sufficient reason must be applied for full incontrovertible validity. A further reduction of these sub-divisions is unnecessary for our purpose ; they embrace all particular rational sciences, and carry their criterion to the confirmation of any. The longest and most diligent life will find the field both broad and rich enough for it. This present work is an intended introduction to the whole field, with fair preparation to labor readily and profitably in any part of it. The *Rational Psychology* was designed to bridge the otherwise impassable chasm between empirical deduction from tested fact, and rational induction of efficient causes for the facts ; the safe suspension of the bridge being in the scientific test that the clear Idea in the Reason is ever the experimental Law in the Fact. We may go to or from either side at pleasure on this infallible principle. The insight of reason gets the adequate cause beyond experience, and within experience the scientific test finds the actual fact in perfect correspondence. In every fairly tested case, the rational cause and the actual effect implicate each other, and neither can be thought except as the duplicate complement of the other. The one is nothing in the absence of the other.

With what may be gained from these two works there will be a preparation for applying and duly estimating the validity of the tests for the remaining divisions of science. We have

found a faculty and taken a position enabling us to overlook all the activities of the sense and understanding, and all their attained cognitions, and through them to look at what was assumed and has all along been kept unexplained, as a necessary condition for the very beginning of our process of knowing. Neither the sense nor the understanding was able to overlook its own processes, and could only repeat them and take the new experiments as convincing, on the ground of perpetual uniformity, making invariability of fact in experience stand as valid law of experience, while knowing nothing precedent to the fact that had been determinative of it. The common mind had the conviction of precedent efficient condition, but neither it nor its scientific teachers could give any ratification of this conviction. An acknowledgment of the organ of reason gives the authority to claim this precedent adequate confirmation, on the ground that any man denying it convicts himself of self-contradiction. He denies what he is unavoidably obliged perpetually to re-affirm. The denial is inevitable self-debasement. This faculty is the organ for philosophy, and the field of the Rational and Theistic sciences is the field of philosophy, to each of whose sub-divisions it is necessary to apply the test as the only way to the bringing of common experience to a complete system.

That Philosophy which may expect to find an open process to the completed system of General Empirical Science begins, beyond the Psychical, with the Division of

RATIONAL SCIENCE. We only indicate the course it must take through the stages of the subdivisions already classified.

The Aesthetic Standard of Taste may be attained by summarily noting its successive indications. Each sense has in experience its agreeable and disagreeable sensations from outward affections of the organ, and guided by scientific experiment it may reach the maximum of gratification attainable by any one sense, or in general of all sensations; and all such

standards, particular or more general, would be artistic rules for guiding and ratifying so many sciences ; but as ministering only to sense-gratification, even under the best appreciation and adoption by the understanding, they would stand in the rank of *useful art* only.

Of all the senses, those of sight and sound only, above their application to appetites or fancy in sense, or to estimates and imaginations in the understanding, have the capability of giving measured forms that appeal directly to the reason. Organic forms of colored light and shade, and of modulated tones, meet and please the eye and ear as mere sense-recipients, and pass on to fairly estimated judgments, but they also go further and stand directly in the presence of reason. Life is back of the organism it builds up about itself, and is quite beyond the reach of sense-observation or its reflection in the understanding, and can be brought within human cognition by the insight of reason alone. But in the reason, looking through the phenomenal organism, the life-power is its authoritative induction of that which, precedent to the organism, was the only sufficient reason and adequate cause that such an organism came formally into sense-observation, and then passed out of sense into psychical recollection. And so coming into rational cognition it must, of course, abide the test of reason's approbation.

The completed life-forms, in all parts of the organism and in matured structure, are the elementary materials for rational art, and the insight of reason detects and approves such only as the actual life-power will permit to stand out in the art-world as its worthy representatives. To the reason, thus, the true form is back of the organism, and in the primitive life-power that makes and shapes and fills the organism in whole and in every particular member. It is no conception *taken together* after the sense, but a true Idea *living and acting* within the organism it has made. Whatever so represents life, and living emotion, sentiment, purpose, or characteristic disposition, be-

longs to *fine art*, having mere life and sense-representation in *low art*, and the exhibitions of the most elevated human characteristics in *high art*, all standing out in pure form to the insight and approbation of reason. We want the manifested form for no sense appetite or interest, but solely for the contemplation and approbation of reason.

And now, any scientific and able work of art, either as written treatise, or finished model in marble, or canvas, or musical performance may be studied with profit as well as pleasure, but none can subserve the end of philosophy which merely or mainly applies the test of reason to any select model or school or age of art, ancient or modern; for philosophy has its end not in what of beauty has been put within experience, and only so far as experience itself has become beautiful in its conformity to the rational standard of Taste. Hegel's treatment of art, exhibiting the fulness of his fondest interest and genius, has this insufficiency for philosophy, that like his whole system it can apply itself only to what experience has in it, and not to any standard of Taste which reason presents beyond it. What the combined spontaneities of nature and the thinking process have already gained it has, but it can go no further. But experience itself has the life of reason beneath and beyond it, and has the living ideal of reason working itself out as its artist, and only as we get that can we know its completed system.

The Philosophic Law of Truth has also its special mode of testing application: In philosophy, the task of reason is to look over all that has been done in the sense and the understanding. It is to take note of the assumptions made at the starting; *viz.*, the assumed impression on the sense and the assumed spontaneous reception by the sense, and is to keep the process all through carefully and exactly settled on both sides, till it shall clearly determine that at last the whole content of experience is accounted for, and also that the beginning process and closing have their consistent systematic unity. Nothing is to remain

which has not found for itself a good and sufficient reason. As the philosophy must make the connections of experience beautiful altogether, to the satisfaction of reason as ultimate standard, in like degree these connections must be true to the full satisfaction of reason.

Nothing can be philosophically beautiful that is not moreover philosophically true, and looking back to the connections made in the logic we adopted, it is readily seen what the true is which it is here indicated must stand the test of reason. We first took the logic of permanent conceptions, and then that of changing conceptions, and saw that neither could be made a continuous process, but must reach a dead-lock somewhere, and we have since also shown the emptiness of their respective philosophies. We then took as our adopted logic that of the spontaneous life-process, wherein it was seen that the phenomenal pull and push of gravity, levity, polarity, etc., which had mechanically made up the material system, could in part, at least, be assimilated in living organisms, vegetable and animal and human, in which sentient and psychical spontaneities might have conscious intelligence, and that thus the process of common experience might have its open beginning and its open ongoing. And now that all this be true in the attestation of reason, it will be necessary that these material phenomenal mechanics be known in the insight of reason to have their precedent causal forces, which fairly and fully expound every mechanical movement of the material universe, and make of it one exact system ; and also that each organic being has its living spontaneity which, precedent to the organism, has taken the material forces and wrought them into its embodiment ; and that in this organic embodiment, sentient and psychical agencies lie back, which have been causal for conscious perception and psychical reflection ; and finally, that the human organism, with its more highly endowed rational spirituality, has had also its precedent adequate causality. They are all in their living

organisms actually outworking after their kinds, and they must rationally be accounted for, and this is the indicated necessity for attaining the True in philosophy.

Such attainment of the precedent causality in the material universe was attempted in the *Rational Cosmology*, on the same principle as in the *Rational Psychology*, that the Idea in the Reason was ever the law in the Fact, but this has since been accomplished, not only for the mechanism of matter, but comprehensively for living organisms and sentient and psychical intelligences and rational humanity, in the work, *Creator and Creation*, on the more compendious principle that the precedent Idea in the Reason makes the Fact. The First Part of that work, in finding the Creator, is not here applicable, but Part II., beginning with Space and Time, meets the demand here indicated, and also shows its necessity on the ground that the reason only can give the connections of the Universe in their places and periods in the one Space and one Time which shall be in common for human experience. It is not enough to make an induction of accordant facts, and then induce from their uniformity the facts that must in future be, for this keeps ever within the experience. The reason must, through the peculiarity of the facts, infer the precedent adequate causality for the facts, and thereby transcend experience in the determination of what must first have been in order to the experience. Every rational human mind is constantly conscious of this induction of efficient causalities, and of the impossibility to rest satisfied in any supposition that has not its apprehended adequate causation. The supposed causation must itself produce the fact, independently of all mental deductions from any fact.

The Philosophic Rule of Right is, finally, another and independent mode of applying a valid attestation, and which must be apprehended and admitted before there can be a systematic unity of common experience. Empirical connections must be

beautiful, accordant with an ultimate standard of taste, nor can they so be except as also they conform to the ultimate Law of the True; and now we must see moreover that they can be neither beautiful nor true except as they also conform to an ultimate Rule of Right. An endowment of Reason superinduced upon the sense and understanding gives the right to say, that if any assumed beauty or truth violate the dignity of the rational spirituality, and therein degrade and debase this supreme excellency, such beauty is a deformity, and such truth is a cheat and falsehood. Above all claims whatsoever is the obligation upon every man that he maintain his spiritual integrity.

How it is deemed practicable to exactly and universally apply this ultimate test to all human experience is given in the recent joint revision of the *System of Moral Science*. All rules of economy, utility, expediency, estimate of most happiness on the whole, which only keep within experience and deduce their standard from experience, must be utterly incompetent to determine what experience itself ought to be. And yet such a determination we must have, or leave common experience irreconcilable with reason. What reason claims must be found and rendered.

And now, when every fact in common experience shall have been found to have its sufficient reason for its existence, and in this adequate causality precedent to the experience for all phenomenal existence, Rational Science shall have been philosophically tested and finished, the Index will yet point onward to a more advanced mode of attestation. All such precedent causality for its fact would still leave all in simple individuality, and the reason of each man would be conscious test only for his own facts, while the common experience must, in order to its philosophic unity, have its testing appeal to a reason that is in common for all. There must be found the one source of rational valid attestation for humanity, and this will be the final demand for a —

THEISTIC SCIENCE. While we extend this demand to all within its field, we need also to know how to restrict this field itself within its requisite limits. All common experience for humanity — material, vital, spontaneously sentient and psychological, and also spiritually ethical — must have its standard of appeal to a common source beyond any individual appropriation, but it should not be required to find an appeal for anything beyond human experience. Our science must ultimately systematize the experience of all humanity, but if there be any higher or lower experience than that which is brought within human consciousness, such will not at all appertain to our philosophy. We stop short with the comprehension of humanity.

The Reason which shall fulfil the ends of a testing appeal for the verity of all common experience must be ultimate authority for entire humanity, and as such it is the God of humanity, and the task for finding this is thrown upon the philosophy. That pretended philosophy which cannot reach to this is good for nothing as philosophy, since manifestly nothing short of this can give ultimate validity to any one lower field of science. Such a *God for Humanity is the Postulate of Reason*, and if the philosophy cannot attain to it, it is worthless.

The *Logic of Reason* is a work designed to exclude all scepticism from the whole sphere of Reason, and while for the present use the criticisms of various theories in the First Part are unimportant, the Second Part is directly applicable, and may be sufficiently available.

We cannot start from nothing and ultimately attain something. "Out of nothing, nothing emerges, as into nothing, not anything returns." No assumed time-successions can give origin to anything. But a common experience — mechanical, spontaneous, sentient, psychic, and spiritual — actually is, and reason's demand is peremptory for a sufficient causality; and the man who holds to the actual, and denies the adequately

causal, forfeits all credit to his rationality, and consciously debases his birthright. Such sufficient Reason is itself adequate first cause for all within experience.

And just here is the point to make a wise adoption on the right side of the two distinctions in philosophy from the early period of Greek speculation. Socrates habitually pushed all speculation back to an ultimate source that was comprehensive of all logical elements. Plato, his disciple, found this in an Idea older than the phenomenal, and which he took as the paradigm of all phenomenal experience. Aristotle, Plato's disciple, kept himself within phenomenal experience, and made his ultimate a conception, which was the taking together of like phenomena in common after the observed uniform order of experience, and generalizing it to an abstraction which extended to all phenomena as its subordinate. The Platonic Idea was a sufficient reason for the production of all experience of which it was the paradigm; the conception was an empty abstraction which might have all that it had been taken from again put back within it. The former was origin for experience, the latter an empty abstract from experience. No possible philosophy of the latter can compass experience in one system, while the philosophy of the former has failed to reach an ultimate systematization only from the incompleteness as yet of physical and psychical testing experiment. It admits of and invites to a philosophy ample for the compass of all human experience. We have already attained by it an existing Reason sufficient for all the force and life and thought, and all the beauty, truth, and goodness of human experience.

Divine Authority for human history presents the necessity for a further and higher mode of appeal to reason for its validity. Our philosophy has attained, beyond contradiction, an adequate Author of all the facts in human experience, in a first cause for all causality, mechanical and spontaneous. The author of Nature and humanity is a rational personality, and as the Lord

of all human personalities, must hold communion with them and maintain a providential and moral government over them. For all these ends of government there must be fully accredited communications from the rational sovereign to his rational subjects for regulation of secular, social, and moral intercourse among themselves, and the direction of their personal and religious service toward their God and Saviour. He must teach and educate them in many things prior to their knowledge and in order to their capability to make manifest their due allegiance. All such revelations and disciplinary communications will be made from time to time as occasions demand, but comprehensive and determinative of all available instruction and competent recognition of any relation is an authentic history of human experience itself, especially its beginning and termination, which no history made within experience can ever reach. No matter how fully detailed and authentically tested the longest and broadest historic succession of events may be, while their origin and termination are unknown, they must stand by themselves isolate and unmeaning, with no sufficient initial or final reason why they should have been at all. No history by humanity can be the history of humanity itself, and except as we have this history of humanity from the author of humanity, and of all human experience, we can have no adequate cognition of what humanity is, what it means, or whether indeed it have any significance whatever. Our history of our common experience must come authenticated from the Lord of humanity itself, or it is but a dream that can get no interpretation.

Human experience has many histories which have sprung up from within ; none of these, though claiming to be universal, can at all help us ; all religions have their deities, and experience has its many religious authorities, each giving its own account of its validity and its historic right to control its votaries. We have no choice but to go to some one already propounded, or propound some new authority for an outside

history, since in the absence of it we can never systematize the common experience of humanity, and the one we take must be able to test itself thoroughly by its rationality. It is good for nothing in philosophy if it cannot stand the test of reason. Neither science, philosophy, nor religion can have any validity till they can all stand together in the one completed and consistent system that is ratified in an ultimate reason. If we take the scriptures of the Old and New Testaments for our history of common experience, it can hardly be permitted to us to say, the Bible was not intended to teach us science, since a religion whose history of humanity does not sustain science must stand us poorly in stead when we come in our extremity to rest our faith upon it in prayer or our hope in it at death.

But if we will take this scripture history of human experience and apply to it the philosophical test of reason as we have already determined it, we shall find its authority unquestionable, and its validity steadfast in every emergency. Minor points of particular chronology, interpretation, translation, manuscript transmission, or exact authorship may raise disputation, but the credit of the history as a whole will forever stand the true test utterly immovable. Let it be carefully noted that the history is that of humanity in its earthly home, only barely stating what before occurred and what must afterwards follow, and that the authoritative source from which it comes is the divine Logos, or Reason, who, though adequate First Cause for all worlds, is peculiarly the Lord of the human race as dwelling on the Earth, and having reference to other beings or worlds only as bearing upon our common experience.

What precedes our direct experience, and stands wholly outside of human observation, but yet needs to be taken into account in order to a systematic comprehension of experience, is contained in the first and second chapters of Genesis ; and the testing of this account of the origin of all experience, by the Rational science as already indicated under the second subdi-

vision of the *Philosophic Law of Truth*, will infallibly establish its divine authority. With the philosophy of the primitive distinguishable Forces, as given in the work, *Creator and Creation* there referred to, applied to the successive "days" or epochs, as the creating process advances, we cannot fail to see, literally, a most exact correspondence of the rationally induced Philosophy and the divinely authenticated History. The History manifests itself to be designed for humanity, admitting only what is relative to the earth and human experience upon it, and is thus comprehensive for human science and religion.

The "beginning" in our Philosophy and this divine History is at the selfsame point; in the Philosophy at the creation of "material atoms," and in the History at the creation of "the heavens and the earth." The history particularizes "the earth," though as yet unseparated from the mass, while all was in chaotic darkness, with the Spirit of God brooding over the surface. Light is called for and it comes, and the "ethereal atoms" of the Philosophy are thus present. The light is separated from the darkness, and in this we have the ethereal atoms of the Philosophy inclosed by the expanded material mass, giving a sphere of internal brightness environed by the dark flux of melted matters, the light called day, and the darkness night. This ends the *first epoch*.

This universal sphere of light and matter opens its next era with its gravitating matter pressing back upon its fixed centre and crowding in the elastic ether, and comes to its equilibration throughout with a firm periphery dividing the consistent fluids beneath from the volatile gases above. There is thus made a "firmament" which is called "Heaven." In every system and world subsequently evolved, there will be to each its respective firmament, the centre of the world resting back upon the universal centre, and holding out its matter to its periphery of condensation, and dividing this from its vaporized matters beyond. To the human eye the phenomenal heavens will be

the blue arch where the clouds float and in which the stars shine. This ends the *second* epoch.

The next era begins with the earth already evolved and moving independently. The solar system has been detached from the universal matter, and has thrown off its outer planets and planetoids, and the history notices this theatre for common experience alone. It cannot be that it was intended as a complete account of the creation going on in other worlds, but it must mean that these scriptures are designed as the Bible for humanity and meant to teach man in science and piety. Philosophic Geology manifestly tests its instruction. The earth's crust is upheaved into mountains, the waters are gathered into seas, and the dry land appears. The second chapter says, that "the Lord God had not caused it to rain upon the earth, and there was not a man to till the ground, but there went up a mist from the earth and watered the whole face of the ground." The inferior planets have, perhaps, not yet parted from the solar mass around which the Earth had its orbit. In this state of inner and outer heat and abundant moisture, plant-life was introduced, and the vegetable kingdom with its varied species widely flourished. From this primitive vegetation the Earth probably has gotten its vegetable oils and coal-measures ; and in this unconscious life ends the *third* epoch.

The next era begins by giving the earth its moon, and then, with the inferior planets evolved, the sun is finished, and measures times and seasons. And thus ends the *fourth* epoch.

In the *fifth* epoch the waters were filled with living creatures, and the air had its flying fowl ; followed by the *sixth* epoch, when, added to vegetable life, the land had its superinduced Animal Kingdom with its many species, crowned at last by the long foretold Man, made in the likeness of the creating Logos, and, by the reduplication of his own flesh and bone, made also male and female, becoming in the marriage bond a unity inseparable only with death. The final blessing was in his

conferred right of dominion as lord of all below, under his Maker, and with the injunction to replenish the earth and subdue it. Here the Creator rested from his work, and the *seventh* epoch or the Sabbath commenced. The newly created and married pair were put in the paradise of Eden "to dress it and to keep it."

With this introduction, divinely given and philosophically authenticated, the sacred History of human experience begins and follows down the ages to the consummation of its development in the final judgment. We refer here to the version as it has been found and given in the work *Humanity Immortal*, where it has been endeavored to test the "last things" of the human history as accurately and completely as in the *Creator and Creation* has been attempted for "the first things." Any assumed divine history of humanity must abide the philosophic test of ultimate appeal to reason if it is to help either science or religion.

Philosophy has still one more testing process to which it must be subjected before it can authoritatively be announced that it has spanned all human experience and completely brought it into systematic unity. The agency by which this is to be effected is given in the attested History we have now adopted. This agent must be competent to create the stage and the actors for its exhibition ; must rule the whole performance ; must open a way of reconciliation for offenders ; must apply the appropriate inducements to final successful consummation, and then justify the whole superintendence and ultimate attainment. Only thus can human experience get its final Theistic consummation and universal approbation. Can the agency which may accomplish this become in any way subject to human recognition? It is in reference to this final inquiry, that we have now the philosophic Index directing us to this stopping-point, — *the tri-personality of God's activity*. The Doctrine of the Divine Trinity has been very generally appre-

hended as an insoluble mystery, and if it be thus, it must be a delusion to propose it as in any way connected with scientific ratification: yet, surely, in the divine history, the truth of a divine trinity is not infrequently alleged as the mode of accounting for much of the divine agency; and we may therefore reasonably look, though reverently, for the discernment of this mystery by the reason's eye. To suppose God's agency to be like the human, having sense first, and then reflection upon and deduction from sense, would be absurdity, since, as author of sense and reflection, he must first know them in order to their production. To know by an inference from an event what was a previous sufficient reason for it, is not absurd in man, for his insight of reason gives to him such capability; yet this is inadequate to the divine knowledge, since God must know sufficient reasons for events in himself, without looking through the events to the reasons. This last mode of knowing may be a secret for man, and in this way a mystery; and yet the secret may be made quite explicable to man, by a rational use of the truth of a divine tri-personality, and, thus explained, the mystery becomes an illumination of all the first and last things in the history which were outside of the experience. Only this last test is yet to be applied.

And now, when our philosophy has tested and gained for us the Reason which, as divine Logos, has made all things, and has ratified the history which reveals his creating agency, and his special rule over humanity, and, as "*Agnus Dei*," has brought in redemption and finished and delivered to the Father the Mediatorial kingdom, we come to this test of tri-personality as the last work of Christian philosophy.

Our own finite reason has intrinsically its trinity, and consciously to our own apprehension gives to us each a three-fold self in one. Every man has in his one consciousness an imperative self which for its own sake claims and holds perpetual authority in its own right, and he so keeps this that no other

faculty can dethrone it ; and then he has an executive self that expresses and utters in act what the imperative self demanded and for which no other self can stand responsible ; and then, thirdly, a judicial self that approves or condemns with a fixed decision beyond all interference by any other self. And yet this legislative, executive, and judicial selfhood stands in one consciousness and all work to one end. It might or might not have been, that this human experience should of itself have suggested the Trinity of the Absolute Reason, but when the divine history reveals and uses it, this finite reason in the image of the absolute both expounds and confirms it.

We cannot present to our own apprehension a creating or a redeeming Logos who must not have had, in the beginning of his work, a primitive Ideal paradigm purposely and imperatively put before him, which he also purposely and exactly brought out into express manifestation, in all particulars, and which was again purposely and consistently put together like the pattern. These three purposes, to insist on the ideal plan, to put out in full expression all its particulars, and then to connect these particulars after the ideal, whether in creation, redemption, or other work bearing upon human experience, are so separate and independent that they readily if not necessarily will be taken as three wills joining in associate labor for a common interest. Whether in exertion at the same or at different periods, either one might consistently say of itself and the others, "I am, thou art, he is" ; and of their distinct employments, "this belongs to me, and that to thee."

The keeper and enforcer of the working plan acts wholly in secret, and has no change, but has perpetual prime authority ; the utterer or exhibitor of every part in phenomenal manifestation is begotten of the former, and wills according to the Father's will ; the conjoiner of the exposed parts in the one plan springs from both the Father and the Son, and executes exactly the intentions of both. Each is thus a proper person-

ality, and yet neither has an isolate individuality, since, as they all work in one light which illuminés only one and the same plan, one and the same field of consciousness in the reason belongs to all. Literally the three persons as wills are one individual as conscious reason, such tripersonal being, though a contradiction in either the observing sense or the reflective understanding, is an intrinsic consistency and an extrinsic necessity to the comprehending reason. The first and last truths of human experience can be put into its history and the whole be combined in completed system through no other agency than that of a Deity before and beyond the experience, and yet interfering in experience at his pleasure; and such absolute Deity can be cognizable by no other human faculty than the reason with which man has been endowed by his Maker. Nor can the finite human reason recognize God's agency in creation and redemption otherwise than through his tripersonality. So far as human experience has yet gone, both its science and religion may receive and can sustain the test of reason, and for that which yet remains in the future, and is now but unfulfilled prophecy, the test of reason must be as full as for all that has gone by.

The Bible history is for common experience, and its authority is restricted within the reign and kingdom of redemption, which, on delivery to the Father, still has left out many sharers in the common experience who did not become sharers in redemptive salvation. The last word of this redemptive authority is exactly the perpetual voice of reason which declares that the final state is that of retributive moral estimation, and that this is henceforth, both by God and his rational creatures good and bad, to be held in exact accordance with moral character. Every being will himself know as he is known, and the shame and contempt of the guilty, and the approbation and respect of the righteous, will in each and all others be as the truth is. While then the good in being and doing good may be expected to

become more good and worthy, all encouragement of better changes for the bad must stand in the probabilities of recovered moral character. If devils and bad men become good angels and good men, God and all the good must rejoice, and even all the bad must approve, but the hope for such change must rest on the expectation that the progress of retributive estimation is about to do more and better for the bad, and prove a more effectual means of improvement, than has been gained by all the patience and loving kindness of probation. Why, then, we are forced to ask, has mercy ever rejoiced against justice and judgment? We may, yea we must, let the ongoing experience of man, as of all other rational beings, be left just as the delivering up of the mediatorial kingdom to the Father leaves it; *viz.*, to the test of reason; and we stand in the full conviction that in this end "that God may be all in all" is the systematic consummation both of revelation and of all science.

All that the interposition of Gospel mediation has gained has been gathered in and retained, and the Absolute Reason in the triune Godhead reigns still supreme, though as yet unheralded in any authentic record. Such at least is the consummation of Christian spiritual philosophy, whose facts and history have had their large place and long period in common experience, and while this must, till the predicted consummation come, make its reasonableness its ultimate test, yet may it fearlessly stand in competition with any and all other philosophies and religions, which, having been in human experience, must encounter the same rigid and candid test of reason. All philosophic attempts to comprehend experience in full system must make their ultimate appeal to reason, and the rational one only can be the universal science, while all others must stand self-rejected in their ultimate unreason.

The Philosophy which completely systematizes human experience fitly ends with an ascription of worship; and unto the TRIUNE GOD, Father, Son, and Holy Spirit, of whom, and through whom, and to whom are all things, be glory for ever!

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The Plays, in all cases, are given entire, save the bare omission of such lines and expressions as the Editor has always deemed it necessary to omit in class. The omissions, he believes, do not in any case reach so far as to impair in the least either the delineation of character or the dramatic action. On the other hand, he has not meant to retain any matter not fairly pronounceable in any family.

We trust that this cleanly expurgated edition of Shakespeare may give pleasure and profit to hundreds of family circles where now he is almost unknown.

Buyers should be careful in ordering not to confound the HARVARD SHAKESPEARE with an OLD EDITION made in 1851. (See extract below from *Boston Herald*.)

Please Notice: that the HARVARD SHAKESPEARE is put up only in 10 and 20-volume editions, while the above-mentioned OLD EDITION is put up in 6 and 12 volumes.

We copy the following from an article in the *Boston Sunday Herald* of Oct. 3, 1880, having reference to the old and late editions mentioned above:—

“It was in 1851 that his (Hudson's) first edition of ‘Shakespeare's Plays’ appeared in 11 volumes, after the form and style of the Chiswick edition of 1826. It was the first time that, properly speaking, the Poet's text had been edited in this country. The edition, so far as the text went, was extemporised. Its chief value was in its notes and introductions. When Mr. Richard Grant White's edition appeared in 1865, to use Mr. Hudson's own words, he ‘beat me all to pieces.’ ‘Now,’ he adds, referring to the Harvard edition of Shakespeare, just from the press of Ginn & Heath, ‘I can beat him as much as he then beat me.’”

“In 1870 Ginn & Heath became his publishers, and brought out his ‘School Shakespeare’ in three volumes, containing seven plays each. In 1872 he put into two volumes the substance of his earlier volumes on ‘Shakespeare's Characters,’ revising, condensing, rewriting his earlier work, parts of which he had outgrown, and presenting his final opinions under the title of ‘SHAKESPEARE'S LIFE, ART, AND CHARACTERS.’”

“It was felt by his publishers and friends, quite as much as by himself, that he ought to bring his fine Shakespearian scholarship to a final test in his mature age, and produce an edition which should embody his best and ripest conclusions. As far back as 1873 this great undertaking was in hand; it has been pursued in season and out of season ever since. This is the edition by which Mr. Hudson is to be known in the coming time. It is dedicated to the memory of Daniel Webster, and the volumes, containing only two plays each, are models of what a book of this sort should be. It is altogether almost a faultless book of its kind; and, with Mr. Hudson's growing fame as ‘Shakespeare's scholar,’ it is destined to be for many years the library edition which will, perhaps, be most sought for. In simplicity, in neatness, in scholarly character, THE HARVARD SHAKESPEARE leaves nothing to be desired.”

Mr. Hudson himself says:—

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Those interested in Shakespeare should send us a postal asking for the pamphlet containing an interesting extract from the Preface to this new edition.

It gives satisfactory reasons why a new popular edition of Shakespeare is needed, and shows how this need has been met in **THE HARVARD EDITION**.

It explains clearly the proper office of Poetry, shows how it should be read, and how Shakespeare is to be made attractive and instructive.

The same pamphlet also contains an Extract from an article in the *Boston Sunday Herald* of Oct. 3, 1880, giving "*An Outline History of the American Carlyle.—Personal Sketch of Mr. Hudson in his Library, and the Growth of his Shakespearian Studies.*"

The following comments on Mr. Hudson's Works are good evidence that he stands first among American Shakespearian Editors, and is considered very high authority both in England and Germany.

Horace Howard Furness, Phila.: Will you kindly send a copy, as far as issued, of the "Harvard Shakespeare," to the care of Samuel Timmins, Esq., Birmingham, England, for the "Shakespeare Memorial Library," and add the remaining volumes as they successively appear. Also, please send a copy to the care of Dr. Reinhold Köhler, Weimar, Germany, for "the Library of the German Shakespeare Society," adding the remaining volumes. Please send the bill, including transportation, etc., to me, and it will give me great pleasure to remit to you at once. I scarcely know how I can better show my high appreciation of this noble edition, with its happy mingle of illustration, explanation, and keen, subtle, sympathetic criticism, than by placing it where English and German scholars can have free access to it, and learn from it the wealth of love and learning which in this country is dedicated to Shakespeare.

Joseph Crosby, Zanesville, O.: The completion of your beautiful "Harvard Shakespeare" gives me a fitting opportunity to congratulate you on its production. Having carefully read every word as it came from the press, I have earned the right to say that it is a noble and admirable edition *in every respect*, and could I have but one Shakespeare, whether to take up for an hour's enjoyment or for the purpose of close and critical study, I would at once select the "Harvard." Dividing the commentary, and placing at the foot of the page such notes as elucidate linguistic difficulties or obsolete allusions, and throwing the textual criticisms into a body at the end of the play, is an excellent scheme. And while in the former there is no "shirking," the text being made "plain as way to parish church," so far as the researches of the best scholarship allow, they are as free from pedantry as from dulness. Mr. Hudson's style is unique in its piquancy and

its vigor; and he keeps his readers on the *qui vive* from first to last. And so in the "Critical Notes," every change from the old copies is remarked, and the reasons for the text selected are set forth without dogmatism or any of that abuse of fellow-commentators that disfigures our old Shakespeares. With the "Harvard" edition, and the editor's "Life, Art, and Characters of Shakespeare," any reader will find himself thoroughly equipped for the intelligent study, textual and æsthetic, of the great dramatist. These books contain the results of a long life's sympathetic devotion to Shakespeare; they are an imperishable monument to Mr. Hudson, a credit to your house, and an honor to America to have produced them; and I sincerely hope they will find, as they richly merit, an appreciative and world-wide circulation.

Mr. F. J. Furnivall's Introduction to "The Leopold Shakespeare": In Shakespearian criticism, Gervinus of Heidelberg, Dowden of Dublin, and Hudson of Boston, are the student's best guides that we have in English speech.

Prof. Dowden, Dublin: Hudson's edition takes its place beside the best work of English Shakespeare students.

London Athenæum: Mr. Hudson's volumes deserve to find a place in every library devoted to Shakespeare, to editions of his works, to his biography, and to the works of commentators.

Mr. H. H. Furness: I cannot refrain from recording my thorough admiration for Mr. Hudson's æsthetic criticisms. No Shakespeare student can afford to overlook them.

New York Tribune: As an interpreter of Shakespeare, imbued with the vital essence of the great English

dramatist, and equally qualified by insight and study to penetrate the deepest significance of his writings, it would be difficult to name an English or American scholar who can be compared with the editor of this edition. Not even Mr. Coleridge, or the late R. H. Dana, the great masters in Shakespearian criticism, and to whom Mr. Hudson would not disown discipleship, have evinced a more subtle comprehension of the finer sense of the many-sided bard, or have given a more vigorous and pregnant utterance to their conceptions of his meaning. His commentary is a study of profound and delicate thought. Every sentence is richly freighted with ideas, which afford the seeds of precious intellectual acquisitions, and the suggestions of noble methods in the conduct of life.

Hon. George S. Hillard: When any one differs from Mr. Hudson's conclusions, it behooves him to examine well the grounds of his dissent. Mr. Hudson is an independent and original thinker, and no mere transmuter of another man's metal. His tone of mind is philosophical. We cannot read anywhere a dozen pages of these volumes without admitting that we are conversing with a thinker, and not merely a scholar. We recognize everywhere a peculiar and characteristic flavor. Mr. Hudson's views, be they deemed right or wrong, sound or unsound, are unborrowed. They are coined in his own mint, and bear his image and superscription.

Mr. Joseph Crosby, Zanesville, O.: The explanatory notes are, where of course they ought always to be, at the foot of the page; they give what the editor understands to be the correct explanations at once; and do not puzzle readers with a lot of variorum explanations, and leave them, unaided, to select for themselves which are the true ones. And I like his *style* too. It is fresh,

original, and pungent. He is determined that none of his readers shall go to sleep over his notes and monographs.

Mr. E. P. Whipple: Gervinus, the greatest Shakespearian critic of Germany, has recognized Hudson as a man whose opinions are to be admitted or controverted, as he admits or converts the judgments of Schlegel and Ulrici, of Johnson, Coleridge, Lamb, and Hazlitt. His is the most thoughtful and intelligent interpretative criticism which has, during the present century, been written, either in English or German. Hudson on "Shakespeare" is an authority, just as Agassiz is an authority in zoölogy. Mr. Hudson has none of the pedantry of many students of Shakespearian lore, while he is brimful of its substance and spirit. He writes boldly and independently, but he is not self-opinionated. He is reverential as well as intrepid. He is never dull; but he does not escape dulness through pertness or shallowness. His great object is to *educate* people into a solid knowledge of Shakespeare as well as to quicken their love for him; and in this educational purpose he aims to delight the readers he instructs. It is in the analysis of Shakespeare's characters that Mr. Hudson puts forth all his force and subtlety of thought. They have been so long his mental companions, acquaintances, or friends, that he almost forgets the fact that they are not actual beings, however much they may be "real" beings. He shows that Shakespeare's characters have so taken real existence in his mind, that he unconsciously speaks of them as one speaks of persons he daily meets. This is the charm of his criticisms. Even when his analysis breaks up the characters into their elements, and shows that they are not so much individual specimens of human nature as vividly individualized *classes* of human nature, he still never loses sight of their personality. His analysis of the great characters of Shake-

speare, whether serious or comic, is so keen and true, that it cannot but give new and fresh ideas to the most diligent student of the Poet. In his expositions of the female characters of Shakespeare he is uniformly excellent. The ideal beauty of these types of womanhood has never had a more genial and delicate interpreter. The minor characters also have full justice done them.

The Congregationalist: His scholarly ability and experience as a student of Shakespeare place any such work from his pen in the front rank. Whatever reading or comment has the weight of his authority behind it, has therein a strong presumption in its favor.

F. J. Child, Prof. of Eng. Lit., Harvard College: A best edition of Shakespeare I have always been at a loss to recommend. As yet I have not gone very far into this new work of Mr. Hudson's, but my first impression is that this may safely be called the very best edition. (*May 24, 1881.*)

Cyrus Northrop, Prof. of Eng. Lit., Yale College: Prof. Hudson has done much to make the study of Shakespeare attractive; and I cannot better show my appreciation of his good sense, his correct judgment, and his skilful analysis of character, as well as of his learning, than by saying that his is one of the editions required in my classes. (*Oct. 19, 1881.*)

Dr. A. P. Peabody, Harvard Coll.: As I have already said, in print and in private speech, I regard the edition as unequalled in Shakespearian scholarship, and in its worth in the library and for current use; and I yield to no one in the highest regard for the editor. (*May 23, 1881.*)

Boston Advertiser: Taking all things into account, the historical introductions, the marginal and critical

notes, the convenient size of the volumes, and the careful and accurate typography, we know of no edition of Shakespeare so satisfactory for constant use. The "Harvard" edition deserves to become the standard edition for admirers and students of Shakespeare in this corner of the world.

Springfield Republican: Characterized by loving enthusiasm, ripe scholarship, terse and comprehensive explanations of obscure passages and dubious words, and able historical and critical comment. The introductions to the various plays are indeed valuable helps to the student, full of the information which years of special instruction have taught the editor to be most suited to the needs of the student and general reader, without taking from him the desire to search further for himself, and of the critical acumen which has marked him as first among America's Shakespearian scholars.

Zion's Herald, Boston: In purity of text and in intelligent annotation this edition has no superior.

The Churchman, N.Y.: It is his merit to give the results of scholarship and learning rather than the processes by which they are reached, and, as a consequence, he does not overload his text; nor does he waste time in explaining what is already obvious and clear,—he holds no farthing candle to the sun. Unlike many editors, he brings his author and not himself to the front, and is himself silent where the great high priest of nature speaks. The great dramatist was the master of all learning, "a poet soaring in the high reason of his fancies, with his garland and singing robes about him," and when the sun is full high advanced in the heavens, before him all lesser lights must pale. It is in this reverent spirit that Mr. Hudson does his work. The notes of Mr. Hudson enable us to discover new

beauties, and this edition of Shakespeare, with its clear type, handsome paper, and modest binding, commends itself to us by a thousand charms.

Washington Post: The "Harvard Shakespeare" is destined to become the standard popular edition of the great dramatic poet. There is no better Shakespearian scholar in the country than Prof. Hudson, and upon this work he has exhausted the researches of a lifetime. In beauty of letterpress, legibility of type, convenience of arrangement, and copiousness of notes, there is no Shakespeare to compare with it.

Christian Register, Boston: We are not alone in approving this edition, for our praise of Mr. Hudson's work has been more moderate than that of many of the critics. The man who reads for enjoyment, desirous of gaining also a fair knowledge of the meaning of Shakespeare, need not find himself ignorant after giving attention to what the author has to say in illustration of the text. In every way the edition is a credit to editor and publishers, and may well stand as the monument of a lifetime of loving devotion to the greatest of English poets. There is enough for the general reader, and not too much. Every reasonable question is answered, and few but special students will care to go deeper into the critical questions which are raised at every step.

The Commonwealth, Boston: Careful research, critical analysis, intelligent comment, judicious notes, and admirable text. A lifetime of thought and investigation is embraced in the preparation of the critical matter, and the suggestions are worthy of respect from all readers of the great bard.

New England Journal of Education, Boston: Whoever is fortunate

enough to possess the "Harvard Edition" has, in the best possible form, an edition of Shakespeare of which he may, as an American, be proud. The publishers have won for themselves not only the credit of being moved with a most commendable spirit of enterprise in advancing American literary scholarship, but have proved that they are unexcelled as book-makers. The Messrs. Ginn, Heath, & Co. have their own printing-office, and their typography and binding is in the best style of the art.

The School Bulletin, New York:
Should receive attention from all who want the best.

Editor of The Western, St. Louis: There is no edition so convenient and satisfactory for a private library.

Boston Letter to Springfield Union, Oct. 24, 1881: As a whole, this is unquestionably entitled to rank among the foremost of all the excellent editions of Shakespeare yet published. Mr. Hudson has brought to the editing of it, in addition to his general scholarship and good judgment, an almost unequalled familiarity with Shakespeare, derived from the special and exhaustive study of his works, his life, his time, and his students, for many years. There is nothing extemporaneous in his work; it is well considered, carefully weighed, and stated as conscientiously as if he were under oath to tell the truth, the

whole truth, and nothing but the truth concerning Shakespeare and his marvellous writings. The editions he has previously produced, both in separate plays and entire, have been rehearsals for this the crowning achievement of his life study. The "Life of Shakespeare" has been entirely re-written, as well as the introductions to the plays, so as to incorporate the latest researches.

New York Evening Express:
Prof. Hudson ranks among the first Shakespearian scholars. He has devoted his life to Shakespearian studies, and to the literature best calculated to explain and illustrate the meaning of Shakespeare's marvellous verse. He is endowed with critical faculties of a high order, sharpened by continuous culture, but balanced by an appreciativeness and a large common sense which keep him from falling a victim to his critical fancies and divinings. He keeps a firm foot on facts, on the solid ground of knowledge, on the established canons of taste and judgment, and is always trustworthy, which is vastly more than can be said of most modern Shakespeare editors and annotators. And these qualities among others — we cannot help mentioning the tasteful form and typography of the volumes — render his edition superior to any we have, not excepting that of the infallible and immaculate Richard Grant White. It is a credit to American scholarship, and admirably suited for educated Shakespearian readers and students.

MISCELLANEOUS.

Hickok's Moral Science.

By LAURENS P. HICKOK, D.D., LL.D. Revised with the coöperation of JULIUS H. SEELYE, D.D., LL.D., President of Amherst College. 12mo. Cloth. 288 pages. Mailing Price, \$1.30; Introduction, \$1.12; Exchange, 60 cts.

This work is an entire and careful revision of Hickok's original text-book of Moral Science. The remarkable excellencies of that book, unsurpassed as it is in systematic rigor and scientific precision, are carefully retained in the present edition. Many parts of the book have, however, been rewritten entirely, modifying the original statements where this was necessary for clearness, and adding new discussions where this was necessary for fulness. To the many teachers who have used the original text-book with such signal profit, the publishers confidently commend this new and revised edition; and with equal confidence they offer it to others who would like a manual in which the principles of morality are expounded in a manner as truly simple as it is thoroughly scientific.

A. P. Peabody, *Prof. of Christian Morals, Harvard Coll.*: Permit me to express my very high appreciation of the value of the work. I read it when it first appeared with the greatest interest and satisfaction, and in its present form it possesses whatever added claims the most skilful and careful editorship can give. Had it appeared a month earlier, should more probably than not have adopted it.

G. P. Fisher, *Prof. of Church History, Yale Coll.*: I have long wanted to see just such a book,—one in which practical ethics should be clearly, and systematically, and philo-

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C. B. Hulbert, *Pres. Middlebury Coll., Vt., and Prof. of Moral Science*: In its present form it is the best of recently issued text-books on Moral Science.

A. A. E. Taylor, Pres. of Univ. of Wooster, Ohio, and Prof. of Biblical Instruction: It is a capital text-book for the class-room, fully abreast of the ethical controversies of the day.

J. W. Andrews, Pres. Marietta Coll., O., and Prof. of Intellectual Philosophy: I class myself among "the teachers who have used the original text-book with signal profit." I have looked over the new work with great satisfaction. It is sound, strong, and clear. I doubt whether any work on Moral Science surpasses this in the depth and permanence of the impression made upon the student. It requires study, of course, but it will repay the *student*, whether teacher or pupil. The part relating to duties to the State is admirable for its fulness and precision.

The N. E. Journal of Education: Taken altogether it is an admirable text-book, and we can cordially recommend it for use wherever pupils are old enough to consider morality in a scientific way, or to discuss intelligently the fundamental principles of civil government. No subjects are more vitally necessary in public education, and this volume presents

them in a clear, compact, and forcible manner.

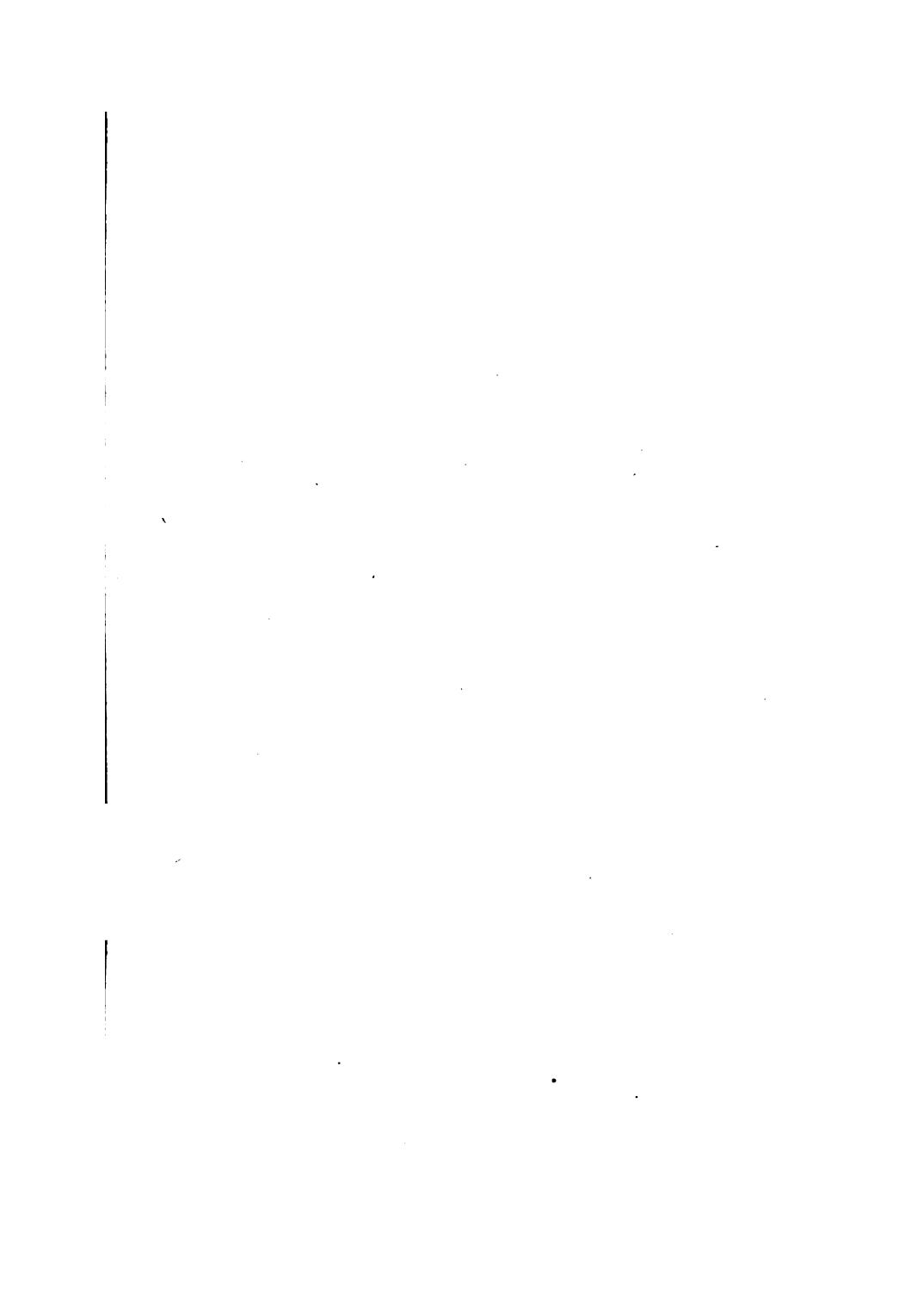
New York Tribune: President Hickok has devoted a prolonged life to the illustration of the supremacy of reason, as the foundation of morals and the light of speculative philosophy; and in this work he has presented the most compact, and, perhaps, the most luminous exposition of his profound theories, and their influence on the development of thought, and the institutions of society; a large portion of the volume is devoted to the practical details of conduct, in the manifold development of social and civil life. In this respect it is not surpassed by any popular manual of ethics. The theory of the work no doubt bears a certain analogy to the "categorical imperative" of Immanuel Kant, between whom and the author there is a visible resemblance in intellectual character and tendencies of thought. But still the stamp of originality is impressed on the leading features of Dr. Hickok's analysis, and the present work, with those by which it is accompanied, mark a new departure in American philosophical speculation, and entitle him to an eminent rank among its representative minds and its practical guides and authorities.

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